



Official Gazette



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Jan. 27, 1904

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Philippine Official Gazette . Aims of Primary Education in the Philippines . Page 58

.A3

L 601

.A3



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MANILA, P. I., JANUARY 27, 1904.

No. 4

[Second statistical number. Vital Statistics, November, 1903, and statistics from other Bureaus.]

PUBLIC LAWS.

[No. 1038.]

AN ACT AMENDING ACT NUMBERED NINE HUNDRED AND THIRTY-TWO, AS AMENDED, SO AS TO LOCATE THE SEAT OF MUNICIPAL GOVERNMENT OF THE MUNICIPALITY OF MALOLOS, OF THE PROVINCE OF BULACAN, IN THE FORMER MUNICIPALITY OF BARASOAIN.

By authority of the United States, be it enacted by the Philippine Commission, that:

SECTION 1. Act Numbered Nine hundred and thirty-two, entitled "An Act reducing the twenty-five municipalities of the Province of Bulacan to thirteen," as amended, is hereby further amended by substituting the word "Barasoain" for the word "Malolos" in the last line of paragraph numbered one of section one thereof, so that said paragraph shall read as follows:

"1. The municipality of Malolos shall consist of its present territory and that of the municipalities of Barasoain and Santa Isabel, with the seat of the municipal government at the present municipality of Barasoain."

SEC. 2. The public good requiring the speedy enactment of this bill, the passage of the same is hereby expedited in accordance with section two of "An Act prescribing the order of procedure by the Commission in the enactment of laws," passed September twenty-sixth, nineteen hundred.

SEC. 3. This Act shall take effect on its passage.

Enacted, January 12, 1904.

[No. 1039.]

AN ACT DEDICATING CERTAIN PORTIONS OF THE PUBLIC LANDS AND BUILDINGS IN THE MUNICIPALITY OF CAVITE, PROVINCE OF CAVITE, TO THE USE OF THE NAVY DEPARTMENT OF THE UNITED STATES GOVERNMENT AS A NAVAL STATION, AND GRANTING CERTAIN OTHER PORTIONS THEREOF TO THE SAID PROVINCE AND CERTAIN OTHER PORTIONS THEREOF TO THE SAID MUNICIPALITY.

By authority of the United States, be it enacted by the Philippine Commission, that:

SECTION 1. The following public lands and buildings in the municipality of Cavite, Province of Cavite, are hereby dedicated to the use of the Navy Department of the United States Government as a naval station: (1) The arsenal and navy-yard, with all its buildings, inclosures, and other structures, including the presidio. (2) The parade ground west of Fort San Felipe and the navy-yard gate and east of Calle Farnecio. (3) The old tobacco factory south of the parade ground. (4) The old headquarters of the military engineers, including the easterly part of the block west of Calle Farnecio and south of Calle Arsenal. (5) The lands and

buildings north of the parade ground and Calle Novaliches, as far west as the line of trees on the easterly side of the paseo extending north from the end of Calle Isabel Segunda, including the plaza and the old public market place. (6) The open land on the north water front between the line of trees on the northerly side of the paseo and the sea wall, from the said plaza and market place west to and including the salient north of the statue of Columbus, preserving as a public highway the present road on the eastern and northern sides of the paseo. (7) The land along the south water front from Calle Farnecio west to the southwest salient. (8) The Porta-Vaga defenses.

SEC. 2. The following public lands and buildings in the said municipality of Cavite are hereby granted to the said Province of Cavite: (1) The treasury building and adjoining lot and shed on Calle Arsenal. (2) The lot on Calle Arsenal facing the treasury building and adjoining the Recoleta convent. (3) The Government house on Calle Isabel Segunda. (4) The Cavite high school near the boundary between the former municipalities of Cavite and San Roque.

SEC. 3. The following public lands and buildings in the said municipality of Cavite are hereby granted to the said municipality: (1) The undedicated portion of the paseo extending from the north end of Calle Isabel Segunda, passing the statue of Columbus, to the northwest salient, to be kept open as a public thoroughfare. (2) The northwest salient. (3) Soledad Square. (4) The isthmus leading from Porta-Vaga gate toward San Roque, to be kept open as a public thoroughfare. (5) The southwest salient.

SEC. 4. The public good requiring the speedy enactment of this bill, the passage of the same is hereby expedited in accordance with section two of "An Act prescribing the order of procedure by the Commission in the enactment of laws," passed September twenty-sixth, nineteen hundred.

SEC. 5. This Act shall take effect on its passage.

Enacted, January 12, 1904.

EXECUTIVE ORDERS.

THE GOVERNMENT OF THE PHILIPPINE ISLANDS,
EXECUTIVE BUREAU.

MANILA, January 14, 1904.

EXECUTIVE ORDER }
No. 4.

The time specified by Executive Order Numbered Eighty-four, series of nineteen hundred and three, for the completion of the revision of the real-estate tax-assessment list for the Province of La Union, that is, November first, nineteen hundred and three, is hereby extended to April first, nineteen hundred and four; and the date specified by the said executive order as that upon which the payment of taxes under such revised assessment shall become delinquent, that is, February first, nineteen hundred and four, is also extended to May first, nineteen hundred and four.

LUKE E. WRIGHT,

Acting Civil Governor.

DECISIONS OF THE SUPREME COURT.

[No. 1167. December 16, 1903.]

*In the matter of the suspension from the practice of the law of
R. S. MacDOUGALL.*

- *1. INJUNCTION; ORDER IN EXCESS OF JURISDICTION.—Under section 164, clause 3, Code of Civil Procedure, the order of injunction must be based on some right respecting the subject of the action and tending to render the judgment ineffectual; and if the injunction embraces property not in litigation the court granting the same acts in excess of jurisdiction.
2. ID.; CONSTRUCTION OF ORDER.—Where, in a suit for recovery of real estate an injunction was granted prohibiting the doing of certain enumerated acts on the haciendas San Luis and La Concepción, among them from destroying "fences of the same," the haciendas comprised an area of over 3,956 hectares and the land in controversy only 446 hectares, and there were separate and distinct fences enclosing the lands involved in the litigation, *held*, that the phrase "fences of the same" contained in the order must be construed as including only such fences as were situated on the haciendas and on the land involved in the litigation.
3. ATTORNEYS; DISBARMENT.—The disbarment of an attorney under section 21, Code of Civil Procedure, is not for the purpose of punishment, but to protect the administration of justice. The acts for disbarment should be such as affect the attorney's qualifications. Articles 356 and 357 of the Penal Code and section 236 of the Code of Civil Procedure are intended as punishment for dereliction of duty and for ordinary cases of disobedience of orders, etc.
4. PLEADING AND PRACTICE; DISBARMENT.—See proceedings had in Court of First Instance for disbarment of an attorney: *Held* as in violation of the right to a full opportunity to answer, etc., under section 25, Code of Civil Procedure.

REVIEW of an order of suspension from the practice of law.

The facts are stated in the opinion of the court.

W. H. LAWRENCE, for petitioner.

Attorney-General WILFLEY, for respondent.

COOPER, J.:

On December 24, 1902, the Court of First Instance of the Province of Isabela made and entered an order against Robert S. MacDougall, esq., by which he was suspended in the exercise of his profession as attorney at law in all the courts of the Philippine Islands, and it was directed that a certified copy of the order of suspension and a statement of the facts upon which the same was based should be transmitted to this court for investigation and for the making of such final order of suspension or removal as the facts should warrant.

The suspension was for the alleged willful disobedience by the defendant of the order of the Court of First Instance made in a certain action of ejectment therein pending, in which the *Compañía General de Tabacos de Filipinas* was the plaintiff and Miguel Tupeño and eighty-five others were defendants.

By this order a preliminary injunction was granted in the case and the defendants were enjoined from committing certain acts on the property involved in the litigation. The particular clause of the order which it is claimed was violated was that in which the defendants in the suit were prohibited from destroying the fences on the haciendas of San Luis and la Concepcion.

On the 17th day of March, 1902, this court appointed a commissioner to take proofs in the case. Additional testimony was taken and the same has been returned to this court.

It is contended by the defendant (1) that to constitute a violation of an injunction, the act complained of must be such as is directed against the interest in the litigation for the protection of which the injunction was issued; and that none of the eighty-five defendants, parties to the original suit, claim any interest in the land upon which the fence cut was situated and therefore that there was no violation of the injunction; (2) that the cutting of the fence was necessary in order to open a public road which had been in use for thirty years and which was the only means of ingress and egress to the lands of one Lacaste, with whom the

defendant had business relations, the entry of the defendant being for the purpose of visiting the house of Lacaste; (3) that if the conduct of the defendant in cutting the fence was in fact a violation of the injunction, still, the evidence indicates that the defendant's purpose was not a contumacious violation of the order of the court.

The most important question in the case is, Was the fence at the place where the cutting occurred covered by the order of injunction; or, in other words, has there been, in fact, a violation of the injunction?

The order restrained the defendant from doing certain enumerated acts on the haciendas San Luis and la Concepcion "and from destroying fences of the same."

To determine the question it becomes necessary to consider the evidence with reference to the situation of the haciendas San Luis and la Concepcion, the situation of the land the subject of the litigation, and the situation of the fences for the cutting of which the suspension proceedings were had.

The testimony shows that the haciendas San Luis and La Concepcion, in their entirety, comprise a large body of land lying on the Cagayan River, containing about four thousand hectares; that within the bounds of these haciendas were located the lands involved in the litigation in the principal suit, embracing about 446 hectares; that there were also other lands situated within these haciendas, claimed by different persons, whose ownership was not disputed by the company, among which was a tract of land belonging to the wife of Lacaste and around which was constructed the fence cut by the defendant; that besides this there were other tracts of land held by persons who claimed adversely to the company and who were not joined in the suit, one of whom was Teodoro Bulasan; that the tract of Lacaste so inclosed, and upon which the fence cut was situated, was of the shape of a trapezium and contained about four hectares of land, one side of which lay along the River Cagayan; that the said fence was constructed by the company around the land of Lacaste, with the evident view of segregating the land of Lacaste from the land of the company, and was so constructed as to completely cut off from all ingress and egress the land of Lacaste, except such as was afforded by the River Cagayan on the north of his tract; that there formerly was a road running through this Lacaste tract, dividing it into two nearly equal portions; that this road had been the traveled route from the town of Ilagan, passing through Naguillon and crossing the estero Conayan, leading thence to Cauayan; that this road passed through Lacaste's land from east to west.

The defendant, MacDougall, accompanied by others, was, at the time of the cutting of the fence, traveling along this road, proceeding from the house of Lacaste toward Cauayan, and, on encountering the wire fence across the road, caused the strands of wire to be cut and removed so far as they obstructed the passage. The fence so cut was situated at the point at which this road entered the west line of the Lacaste tract, the Lacaste tract lying within the inclosure, and the tract on the west, or outside of the fence, either belonged to Lacaste, Teodoro Bulasan, or the plaintiff company.

The testimony of the witness Lineau, as well as that of Lacaste, was to the effect that the land at the point where the fence was cut was owned on both sides of the fence by Lacaste; while the testimony of Bulasan was that he owned the land on the west side of the fence. The company also claims to own the land on the west side. The preponderance of evidence, we think, supports the view that the land on both sides of the fence cut belonged to Lacaste's wife. But it is immaterial whether the land on the exterior or west side of the fence was owned by Lacaste or by Bulasan or by the company, for it appears very clearly that it was not claimed by any one of the defendants in the original suit and that the fence cut was not on the tract of land in litigation.

The metes and bounds of the haciendas San Luis and La Concepcion were not shown in the order granting the injunction, nor

is it shown in any document contained in the record of the case. The order was "against the cutting of the fences of the same." It appears from the evidence that there was no exterior fence completely inclosing these haciendas; that there were separate and distinct portions of fences on what is claimed to be their exterior lines; that besides, there were separate and distinct fences inclosing some of the lands held adversely by the defendants.

The question is, Are we to construe the order of injunction as prohibiting the cutting of any fence situated on the entire tract of 4,000 hectares, or did it refer to the fences on the tracts of land in litigation held by the defendants, containing only about 446 hectares?

The grounds upon which the application for the writ of injunction were based do not appear in the record; nor does it appear from the record or from the proofs in the case where the particular lands owned by the defendants were situated. This is left entirely to conjecture. We infer from the order that the injunction was granted to prevent waste on the land involved in the litigation and that the application and order was based upon clause 3 of section 164, Code of Civil Procedure, which provides that a preliminary injunction may be granted when it is established to the satisfaction of the judge granting it "that the defendant is doing, or threatens, or is about to do, or is procuring or suffering to be done, some act probably in violation of the plaintiff's rights respecting the subject of the action, and tending to render the judgment ineffectual."

The subject-matter of the action was the particular tracts of land claimed adversely by the defendants in the original suit, amounting to about 446 hectares. The land at the point at which the fence was cut was not the subject of the action, and nothing done at this point could in any way tend to render any judgment which might be rendered in favor of the plaintiff ineffectual. As before stated, neither Lacaste nor Bulasan were parties to the suit. The plaintiff did not claim the land within the inclosure, nor was the land on the exterior of the fence at the point where it was cut claimed or held by any one of the defendants who were made parties to the original suit.

Our construction of the order granting the injunction is that the fences which the defendants were enjoined from destroying must be construed as being such fences as were situated on the land the subject of the action; otherwise the court in granting the injunction would have done that which it had no authority to do under the statute.

This construction harmonizes with the spirit and purpose of the order, which was to protect the rights of the plaintiff in the subject of the action.

It is not necessary to determine if the order had specifically identified the fence at the point at which it was cut and had clearly embraced it, whether the court acted in excess of its jurisdiction and the defendants could disregard the order. The proper practice in such cases would be to apply to the court for a modification of the injunction.

Upon the question as to whether the conduct of the defendant in cutting the fence was such a willful disobedience of the order of the court as to justify his suspension or disbarment, had the injunction embraced the fence which was cut, we are clearly of the opinion that it was not.

Robert Lineau, a witness for defendant, testifies that on the 23d day of November, 1902, in company with the defendant, MacDougall, he went from Ilagan on horseback, passing through Naguillon and following the public road which led from thence in the direction of Cauayan. On arriving at the barrio at the north of the Estero de Conayan, a short distance from its mouth, near the residence of Lacaste, they took a *banquilla* in order to enter the premises of Lacaste, leaving their horses on the outside of the inclosure in the hands of some natives, who carried them from thence to the house of Lacaste by swimming them outside

of the wire fence, which entered several meters into the river. The defendant and the witness arrived at the house of Lacaste about 1 o'clock in the afternoon, and on the same evening, about 4 o'clock, the defendant, having finished his business with Lacaste, mounted his horse, and, accompanied by the witness and other persons whom defendant had met at Lacaste's house on business, went down the road, their destination being Cauayan. When they reached the point on the road which was obstructed by the fence, finding their passage obstructed, the defendant, MacDougall, directed the wires to be cut. The fence was cut and the obstruction removed from the road. That there was no disturbance at this time and on this occasion is evident from the fact that none of the employees of the company were present at the time of the cutting of the fence. On the next day MacDougall and his party returned to where the fence was cut and found the employees of the company repairing the fence. The proof shows that a number of the party were armed with bolos, and the witness Balbas states that "their attitude at first was not very tranquilizing, but they committed no act of outrage against me or against my company." This seems to have been the circumstance upon which the court based its order of disbarment and which, in the language of the decision of the judge, "almost constitutes the crime of sedition," but it is perfectly apparent that on this occasion the defendant's acts had no connection whatever with the cutting of the fence. After the exchange of some intemperate language the defendant and his party left, without in any manner interfering with the employees of the company engaged in the repairing of the fence.

As to whether the road at the point where the fence had been cut the day before was a public road, it is not necessary to determine. The testimony of Lacaste and other witnesses show that it had been traveled as a public road for thirty years and had only recently been closed by the company.

There is much evidence also contained in the record of acts of oppression upon the part of the plaintiff company, such as keeping an armed body of police, to the number of ten persons; as to unlawful arrests made by the employees of the company of the people living in the community; that on a certain occasion, a short time before, the sheriff, being instigated by the employees of the company, acting under a writ of restitution which did not embrace the property on which the house was situated, had torn down the residence of the wife of Lacaste, while she was in the house, on which occasion Lacaste and wife were despoiled of a large amount of money and valuables by unknown persons; and such acts as the fencing in of the land of Lacaste without his consent so that no ingress or egress was left to him except through the River Cagayan. Evidence was also introduced concerning the illegal detention of the wife of Lacaste and the quartering by the sheriff of himself and those accompanying him at the house of one Respecio, against his consent, which acts appear to have been the principal cause of the disturbance occurring at this time.

If the defendant, MacDougall, or any of those persons attending him, or if the employees of the company were guilty of such conduct as would subject them to punishment under the criminal laws, the courts of the country should have been resorted to and criminal prosecutions instituted, instead of the attempt on the part of MacDougall to right the supposed grievances of the people of that community, or on the part of the company to protect itself against aggressions on the part of the defendant, MacDougall, by disbarment proceedings. The evidence of such acts should not have encumbered the record in this case.

The language of the clause for which the suspension or disbarment was ordered is "for the willful disobedience of any lawful order of the Supreme Court or the Court of First Instance." From this language it is to be inferred that something more was contemplated than a mere disobedience, which means, in common acceptance, neglect or refusal to obey. The word "willful" has been superadded and conveys the idea of flagrant misconduct such

as would indicate a disposition of the defendant so refractory in its nature as to affect his qualification for the further exercise of his office as attorney.

The disbarment of an attorney is not intended as a punishment, but is rather intended to protect the administration of justice by requiring that those who exercise this important function shall be competent, honorable, and reliable; men in whom courts and clients may repose confidence. This purpose should be borne in mind in the exercise of disbarment, and the power should be exercised with that caution which the serious consequences of the action involves.

The profession of an attorney is acquired after long and laborious study. It is a lifetime profession. By years of patience, zeal, and ability, the attorney may have acquired a fixed means of support for himself and family, of great pecuniary value, and the deprivation of which would result in irreparable injury.

For dereliction of duty on the part of an attorney, articles 356 and 357 of the Penal Code provide a punishment. By article 356 the attorney or solicitor who, in malicious abuse of his profession, or who, through inexcusable negligence or ignorance, shall prejudice his clients or disclose their secrets, of which he had gained knowledge in the course of his professional duties, is punished with a fine of from 625 to 6,250 pesetas, with disqualification for a certain period of time. An attorney may also be punished under the provisions of article 232 of the Code of Civil Procedure, as for contempt, for "disobedience or resistance to a lawful writ, process, order, judgment, or command of a court, or injunction granted by a court or judge." And under section 236, one who is guilty of such contempt may be fined not exceeding 1,000 pesos or imprisonment not more than six months, or both. If the contempt consists in the violation of an injunction, he may, in addition, be compelled to make restitution to the party injured by such violation.

The punishment provided in the Penal Code and in the articles above referred to for contempt would seem to be sufficient to prevent a mere obstruction in the administration of justice, except where the facts are of such a character as to effect the qualification of an attorney for the practice of his profession.

The suspension of an attorney from practice, while it is correctional in its nature, should be directed with a due regard to the effect of such suspension upon the attorney as well as the client. As happened in this case, there was the interest of a large number of clients and important rights involved. The attorney was suspended before final judgment and before he had prepared the bill of exceptions for the revision of the case by this court on appeal, in the preparation of which his services could not well be supplied; besides, it has resulted in the interruption of his business as an attorney for nearly one year.

It is further to be observed that the Court of First Instance did not proceed in the case of the suspension or disbarment of the defendant with that regard to the rights of the defendant which should characterize the action of a court of justice. Section 25 of the Code of Civil Procedure provides that "No lawyer shall be removed from the roll or be suspended from the performance of his profession until he has had full opportunity to answer the charges against him and to produce witnesses in his own behalf and to be heard by himself and counsel if he so desires, upon reasonable notice."

What is a reasonable notice is not stated in this section of the law, but in civil cases, ordinarily of no greater importance to the interest of a person than a disbarment proceeding to that of an attorney, and often not of a more complicated nature or presenting questions of fact and law more intricate, after the complaint is filed, a summons must be issued requiring the defendant to appear within twenty days, if the summons is served in the province in which the action is brought; within forty days if served elsewhere. The rules of this court require that a defendant,

after his appearance has been entered, shall serve and file his answer or demurrer to the complaint within ten days after he has entered his appearance. Besides, a party in an ordinary civil action, where he has exercised due diligence to produce his witnesses and at the day fixed for trial is unable to procure their attendance, is entitled to a postponement of the hearing until such time as he may be able to secure their attendance or take their depositions in a proper case.

In this case it appears from the affidavit of the defendant, MacDougall, that on the 28th day of November, 1902, he was cited to appear by the Court of First Instance and show cause why he should not be disbarred or suspended from the practice of his profession as an attorney, on the complaint of the plaintiff in the original suit, the Compañía General de Tabacos de Filipinas; that on the said 28th day of November, 1902, he was served with the order of the court to appear at 3.30 o'clock p. m. of said day and make his defense to the charges preferred by said company; that he appeared at the said hour and, after making formal denial of the charges alleged against him, asked for reasonable time within which to present his defense by means of witnesses to be produced by him; that the judge denied the defendant the privilege of so doing, then and there ruling that he must present his defense within the space of twenty-four hours; that he objected to this ruling as being unreasonable and contrary to the statute and asked to be given further time to have the attendance of material witnesses, one of whom had left the town of Ilagan for the military post of Salomague, Province of Ilocos Sur, three days prior and that it would be an impossibility to have this witness return within less than a week, nor could he obtain his deposition within a less time; that other witnesses in his behalf lived at the ranchos of Minanga and Mabantad, district of Cauaya, and that it would not be possible to have them appear and testify in the limited time of twenty-four hours; that the judge peremptorily ruled that he would be given twenty-four hours and no longer within which to present his defense to the charges preferred against him; that by such ruling he was denied an opportunity to answer the charges and to produce his witnesses; that on the 1st day of December the case was reopened to take the testimony of the sheriff, a witness for the plaintiff; that after the direct examination of the sheriff by the judge this witness was turned over to the defendant for cross-examination; that all material questions asked by him were objected to and disallowed by the court, to which ruling he excepted; that the exceptions were not noted in the record; that notwithstanding the summary manner in which the defendant was forced to trial, the order of the judge suspending him from the practice of his profession was not made for twenty-six days and was rendered immediately after having decided the main case in favor of the plaintiff, in which case he was the only counsel for the defendants.

The action of the court in thus summarily placing the defendant upon trial without a due opportunity of making his defense and procuring the attendance of his witnesses not only resulted in depriving him of the right to which every citizen is entitled, but it has necessitated the taking of the testimony of the defendant's witnesses in this court, and has occasioned great delay in the disposition of the case, all of which could have been avoided by giving the defendant proper time for the preparation of his defense.

The judgment of the Court of First Instance suspending the defendant should be set aside and annulled, and it is so ordered. The costs of the prosecution are adjudged *de oficio*.

Arrellano, C. J., Torres, Mapa, and McDonough, JJ., concur.

WILLARD, J.:

I concur in the result.

Johnson, J., did not sit in this case.

Judgment reversed.

STATISTICS FROM BUREAUS OF THE INSULAR
GOVERNMENT.BOARD OF HEALTH FOR THE PHILIPPINE
ISLANDS.*Vital statistics for the month of November, 1903.*

LETTER OF TRANSMITTAL.

MANILA, P. I., December 29, 1903.

SIR: I have the honor to submit herewith the report of the Board of Health for the Philippine Islands and the city of Manila for the month of November, 1903, and would invite your attention to the following points:

The number of deaths occurring during the month among infants less than 1 year of age amounted to 58.5 per cent of the total deaths occurring in all classes and ages of the city population, and the deaths among Filipino infants under the age of twelve months represented 65.5 per cent of the entire number of deaths occurring in the whole Filipino population.

The principal causes of mortality and more important diseases entering into the same, with the total number of deaths therefrom and the number of deaths occurring from the same under the age of twelve months, were as follows:

Causes.	Total deaths.	Deaths among children less than twelve months of age.
Convulsions of children	342	342
Pulmonary tuberculosis	68	0
Acute bronchitis	65	62
Eclampsia, nonpuerperal	58	58
Chronic bronchitis	41	29
Beri-beri	36	0
Meningitis	33	33
Congenital debility	28	28
Chronic diarrhea and enteritis	25	8
Dysentery	24	3
Asiatic cholera	23	0
Malarial fevers	16	2
Puerperal septicaemia	12	0
Cerebral hemorrhage	10	0
Typhoid fever	8	0
Tetanus	7	4
Smallpox	2	0
Bubonic plague	2	0
Leprosy	1	0
Diphtheria	1	0

In the above list there appears a total of 404 deaths among children who have not completed the first year of life, from causes variously reported as convulsions of children, eclampsia, and tetanus. Of these 158 occurred within thirty days after birth. The more prominent symptoms presented by these three causes largely resemble each other, and it is believed that the latter are often confounded with each other, particularly since deaths of this class largely occur in the absence of medical attendance, and the death certificates in such cases must be made out on the basis of the symptoms given by members of the family. There is strong reason for belief that the deaths occurring in the first month after birth and attended by convulsions chiefly depend upon tetanus infection at the umbilicus, due to the handling of the unhealed stump of the cord with unclean fingers and the common local practice of massaging the abdomen of the newborn. The other deaths among infants reported as occurring from convulsions, debility, and bronchitis, probably result in large part from exposure, due to nonuse of sufficient clothing depending upon poverty or ignorance. The common practice by the poorer classes of allowing children to remain practically unclothed during the first few years of life can scarcely fail to result in chilling at night or during stormy weather. The above causes of an unduly high infant mortality should be largely preventable. For their prevention the Board of Health has prepared a popular circular on the treatment of the newborn and the care and feeding of infants, and has also author-

ized for the future the gratuitous issue of a yard of flannel to each infant whose parents are financially unable to procure suitable clothing for its proper protection against exposure during the first few months of life. It is anticipated that by these measures, the recent opening of two new free dispensaries, and the proposed employment of additional municipal physicians and midwives, the infant mortality will soon show a considerable decrease.

During November there were 2 deaths from bubonic plague, both in Filipinos. Prophylactic inoculations against plague have been so generally carried out among the Chinese as to largely protect that especially susceptible class against this disease. During the month there were 2,157 primary and 1,515 secondary antiplague inoculations made among the Chinese.

There were 23 deaths from Asiatic cholera among residents, of which none occurred in whites and but 2 in Chinese. There were also 3 deaths from this disease among transients. Following the sudden outbreak in September, of which mention was made in the report for that month, this disease has steadily yielded to the repressive measures taken. Although during the month a number of cholera cases occurred on the drainage area of the city water supply, the special efforts of the Board of Health have successfully prevented the infection of this supply.

Beri-beri caused 36 deaths, of which 13 occurred among Chinese; while smallpox caused 2 deaths, of which 1 was in an American.

During the month a site for the permanent dock and dumping station for the scavenger barge *Pluto* was secured on the south bank of the Pasig River in the rear of the Maestranza, and plans for the construction of such dock and dumping station were prepared. The immediate construction of twenty-five free public latrines and urinals of twenty seats capacity each was authorized and sites secured for the same at suitable points.

The laws in respect to scavenging were changed to meet the new conditions arising from the operation of the scavenger barge *Pluto*. By reason of its improper location and unsanitary condition the Tondo Cemetery was ordered permanently closed in respect to further interments therein. Two thousand copies of a pamphlet on the nature, prevention, and treatment of Asiatic cholera, published in English and Spanish, were ordered printed for distribution to physicians and others.

Very respectfully,

E. L. MUNSON,

Captain and Assistant Surgeon, U. S. A.,
Acting Commissioner of Public Health.

The SECRETARY OF THE INTERIOR,

Manila, P. I.

Population of Manila.

Americans	4,389
Filipinos	189,782
Spaniards	2,528
Other Europeans	1,117
Chinese	21,230
All others	895
Total	219,941

Deaths occurring during the month of November.

Americans	3
Filipinos	922
Spaniards	5
Other Europeans	1
Chinese	43
All others	0
Total	974

Annual death rate per thousand for the month.

Americans	8.32
Filipinos	59.15
Spaniards	24.08
Other Europeans	10.90
Chinese	24.65
All others	0
Average	53.91

Deaths by age.

Under 30 days	102
30 days to 1 year	499
1 year to 2 years	38
2 years to 5 years	31
5 years to 10 years	10

Deaths by age—Continued.

10 years to 15 years	10
15 years to 20 years	15
20 years to 25 years	38
25 years to 30 years	46
30 years to 40 years	80
40 years to 50 years	57
50 years to 60 years	38
60 years to 70 years	22
70 years to 80 years	16
80 years to 90 years	10
90 years to 100 years	5
100 years to 110 years	1
Unknown	8
Total	1,026

Deaths by districts.

Walled City	38
Binondo	65
San Nicolas	83
Tondo	276
Santa Cruz	157
Quiapo	40
Sampaloc	105
San Miguel	37
Paco	82
Ermita	19
Malate	34
Pandacan	14
Santa Ana	16
Transient residents	52
Unknown	8
Total	1,026

Number of deaths with medical attendance	433
Number of deaths without medical attendance	593

Total 1,026

Twenty-five of above were stillbirths.

A classified report of all deaths occurring in Manila during the month of November, 1903 (including 52 transients in Manila).

MALES.

Married	90
Widowers	27
Single	85
Boys	342
Condition not stated in certificates	19
Total	563

FEMALES.

Married	75
Widows	27
Single	16
Girls	341
Condition not stated in certificates	4
Total	463

Grand total 1,026

Stillbirths, 25.

Report of deaths occurring in Bilibid Prison during the month of November, 1903.

Cause of death.	Filipinos.				Total.
	Presidio.		Carcel.		
	M.	F.	M.	F.	
Dysentery, amebic	1				1
Pulmonary tuberculosis	6		3		
Hepatic carcinoma	1				
Fatty degeneration of heart				1	
Pneumonia	7		5		
Senility	1				
Total	16		8	1	2

Of the above cases 13 were single and 12 married. All interments were made in Loma Cemetery.

Of the total number of deaths occurring during the month of November, 1903, 1,026, including transients, 690 were of persons less than 16 years of age. Of the remaining 336 adults of both sexes only 152, classed below, had definite occupations:

MALES.

Laborers	35
Tailors	4
Coachmen	7
Embroiderer	1
Carriers	2
Gatekeepers	1
Carpenters	5
Confectioner	1
Masons	2
Fireman	1
Servant	1
Cigar makers	2
Musician	1
Messengers	3
Merchants	5
Painter	1
Clerks	10

MALES—continued.

Sailors	2
Shoemaker	1
Lawyer	1
Farmers	5
Barber	1
Chairmaker	1
Traders	10
Cashier	1
Actor	1
Blacksmith	1
Foreman	1

Total 107

FEMALES.

Seamstresses	18
Shopkeepers	5
Laundresses	10
Cigarette makers	10
Cook	1
Servant	1

Total 45

Grand total 152

Births reported in November, 1903.¹

Americans	6
Filipinos	397
Spaniards	5
Other Europeans	0
Chinese	1
All others	3

Totals 412

¹ Incomplete.

Annual birth rate per thousand for the month.

Americans	16.64
Filipinos	0
Spaniards	5.24
Other Europeans	0
Chinese	0.57
All others	32.70

Average 22.80

Report of sick and wounded city poor attended by municipal physicians during the month of November, 1903.

Sanitary districts and physicians.	Filipinos.				Total.	Cured.		Deaths.		Number of visits.
	Children.		Adults.			M.	F.	M.	F.	
	M.	F.	M.	F.						
No. 1, San Nicolas, Dr. V. Cavanna	3	4	14	9	30	5	9	2	0	184
No. 2, Tondo, Dr. V. Pantoja	1	7	13	11	32	6	11	6	5	130
No. 3, Quiapo, Dr. P. Gabriel	6	5	14	11	36	11	9	4	4	76
No. 4, Santa Cruz, Dr. C. Reyes	3	6	19	11	39	15	10	3	3	250
No. 5, Sampaloc, Dr. F. Castañeda	21	16	20	25	82	21	21	9	5	212
No. 6, Intramuros, Dr. R. Perramon	11	14	16	30	71	12	28	7	5	194
No. 7, Paco, Ermita, Dr. C. Mora	13	17	20	31	81	16	11	10	15	188
Total	58	69	116	128	371	86	99	41	37	1,234

Monthly report of San Lazaro Hospital, leper and women's department, for November, 1903.

WOMEN'S DEPARTMENT.

	Americans.	Europeans.	Filipinos.	Japanese.	Total.
Number of patients in hospital at last report		3	44	28	75
Number of patients received during the month	1	8	45	27	81
Number of patients discharged cured	1	2	37	32	72
Number of patients died					
Number of patients remaining in hospital		9	52	23	84

LEPER DEPARTMENT.

	Europeans.		Filipinos.		Chinese.		Total.
	M.	F.	M.	F.	M.	F.	
Number of patients in hospital at last report		1	120	83			204
Number of patients received during the month			2	3			5
Number of patients died			1				1
Number of patients remaining in hospital		1	121	86			208

General inspection of houses, premises, vaults, etc., with improvements ordered, disinfected, whitewashed, cleaned, etc., by medical inspectors, chief sanitary inspectors, and sanitary inspectors for the month of November, 1903.

Houses inspected by the chief sanitary inspector	2,729
Houses reinspected for verification of work ordered	750
Houses inspected by sanitary inspectors	26,229
Houses reinspected by sanitary inspectors	5,368
Houses ordered cleaned (written)	14
Houses ordered cleaned (verbal)	4,258
Houses cleaned	4,002
Houses ordered whitewashed and painted	40
Houses whitewashed and painted	8
Houses disinfected	125
Number of houses recommended condemned and removed	21
Number of houses condemned and removed	0
Number of localities where "squatters" are located	23
Number of samples of water from wells sent to Laboratory	1
Number of reports from same	1
Number of fire plugs opened or closed for sanitary purposes	0
Number of hydrants recommended reopened	0
Number of houses where garbage has not been removed for two days	35
Number of persons reported sick to municipal physicians	192
Cesspools and vaults ordered cleaned	194
Cesspools cleaned	156
Yards ordered cleaned	1,419
Yards cleaned	1,232
Yards ordered repaired (repaved, etc.)	66
Yards repaired	27
Number of cholera cases reported by sanitary inspectors	4
Number of cholera cases reported by Auxiliary Advisory Board	3
Number of cholera cases found "alive"	13
Number of cholera cases found "dead"	15
Number of orders issued during the month	192
Number of orders complied with during the month	182
Number of orders awaiting action	320
Number of orders pending in court	14
Number of food tiendas in district	1,526
Number of persons convicted for violation of food prohibition order	1
Average in visiting each street and barrio during month	19.5
Number of regular inspectors on duty	46
Number of emergency inspectors on duty	0
Number of leper cases sent to San Lazaro Hospital	3
Number of plague cases reported	3
Number of smallpox cases reported	3
Houses in which traps are set	15,129
Houses in which bane is placed	3,154
Traps set	32,608
Plates with ratsbane placed	8,842
Rats caught by rat catchers	11,032
Rats caught by traps	8,457
Rats caught by poison	9
Rats purchased	53
Rat catchers employed	70

Monthly sanitary report, Station A, San Nicolas, harbor and river, November 30, 1903.

Steamships inspected	28
Launches inspected	94
Schooners inspected	61
Lorchas inspected	306
Cascos inspected	878
Trips made by the Board of Health launch to the bay	46
Trips made by the Board of Health launch up the river	42
Number of cholera cases found on ships and other craft	3
Number of cholera cases found "alive"	1
Number of cholera cases found "dead"	2
Number of plague cases reported	0
Number of dead bodies found in river and harbor	6
Fumigated	2

Burials during the month of November, 1903.

Loma (Government)	645
Paco General (Government)	20
Santa Cruz	4
Balic-Balic	122
Binondo	20
Maytubig	59
Malate	46
Pandacan	47
Chinese	46
Crematory	14
Santa Ana	22
American National	4
San Pedro Macati	2
Total	1,051

Twenty-five of the above were stillbirths and 52 transient residents.

Disinterments during the month of November, 1903.

Paco Cemetery	9
Malate	1
Santa Cruz	3
Chinese	34
Total	47

Report of crematories for the month of November, 1903.

Nature of cremation.	Palo-mar.	Santa Cruz.	Paco.	Total.
Animals cremated:				
American horses	14		26	40
Australian horses	1		1	2
Chinese mules	4		2	6
American mules	5		8	13
Filipino horses	19		82	101
Carabaos	6		58	64
Cows	90		36	126
Calves	11		2	13
Dogs	210	5	17	232
Goats	3			3
Cats	116	13	12	141

Report of crematories for the month of November, 1903—Continued.

Nature of cremation.	Palo-mar.	Santa Cruz.	Paco.	Total.
Animals cremated—Continued.				
Rats	9,007	10		9,017
Fowls	658	50	2	710
Pigs	147		10	157
Sheep			1	1
Ravens			1	1
Total	10,291	78	258	10,627
Loads cremated:				
House garbage	2,829	123	1,480	4,432
Trade refuse	344	18	49	411
Organic matter	66			66
Waste	225	12		237
Market refuse	275	9		284
Hemp, rotten	8			8
Condemned goods	2			2
Total	3,749	162	1,529	5,440

Report of Veterinary Division for November, 1903.

[David G. Moberly and Murray J. Myers, veterinary surgeons.]

On arrival in city:	
Number of cattle inspected	4,505
Number of carabaos inspected	665
Number of horses inspected	628
Number of hogs inspected	3,331
Number of sheep inspected	250
Number of goats inspected	60
Number of other animals inspected	7
Total	9,446
In Government abattoir:	
Number of cattle slaughtered	2,124
Number of hogs slaughtered	5,040
Number of sheep slaughtered	81
Total	7,245
Number cattle condemned and cremated	5
Number of hogs condemned and cremated	12
Number of horses condemned for glanders	7
Number of horses condemned for surra	1
Number of other animals condemned	58
Total	83

Reports received of lepers living in the various provinces of the Philippine Islands to November 30, 1903.

Province.	Race.	Number of men.	Number of women.	Children.		Single.		Married.		Widower.	Widow.	Total.
				M.	F.	M.	F.	M.	F.			
Antique	Filipinos	92	37	2	2	38	28	42	4	12	5	133
Batangas	do	19	5			12	3	3	3			24
Bataan	do	10	4	1	1	5		3	2	2		16
Benquet	Igorotes	31	10	1	1	1		21	10	9		43
Ambos Camarines.	Filipinos	33	17	1	1	24	12	8	5	1		52
Bulacan	do	17	9	2	1	12	6	5	3			29
Ilocos Norte	do	45	28	5	2	9	10	31	8	5	10	80
Ilocos Sur	do	176	84	4	2	101	50	66	17	14	12	266
Leyte	do	49	38	1	3	26	27	20	7	3	4	91
Masbate	do	51	35	25	10	22	15	23	19	2	5	121
Cagayan	do	46	30		3	20	10	20	19	6	1	79
Lepanto	do	14	4	1		5	1	8		1	3	19
Cavite	do	17	5		3	16	3	1			2	25
Nueva Ecija	do	44	24			19	12	22	8	2	5	68
Negros Occidental.	do	26	11	5	1	17	10	8	1	1		43
Pampanga	do	8	5	2		3	1	5	3	1		15
Pangasinan	do	120	80	2	3	36	28	65	38	19	14	205
Rizal	do	41	24	2		19	12	21	7	3	3	67
Marinduque	do	1	1	1			1	1				3
Laguna	do	2						2				2
San Lazaro ¹	do	100	77	21	10	67	42	26	19	7	16	208
Tarlac	do	27	24	11	4	7	9	17	11	2	5	66
Sorsogon	do	75	33	1	1	33	17	40	10	3	5	110
Romblon	do	5	10			3	6	2	3	1		15
Samar	do	39	32	13	8	17	9	21	18	3	3	92
Union	do	43	28	3		15	14	24	12	4	2	74
Zambales	do	58	35	2		30	15	26	13	4	5	95
Mindanao	Moros	140	74	3	3	84	46	45	18	9	12	220
Cebu	Filipinos	171	89	5	4	136	64	33	21	3	3	269
Iloilo	do	231	66	11	2	113	37	94	9	24	20	310
Negros Oriental.	do	66	42	6	2	27	23	32	14	7	5	116
Isabela de Luzon.	do	18	4	1		3	1	10	3	5		23
Tayabas	do	1										1
Albay	do	68	33	1	1	30	18	27	10	11	5	103
Nueva Vizcaya	do	13	12	2		7	3	4	6	2	3	27
Abra	do	11	6			5	4	5	2	1		17
Bohol	do	46	46	5	1	20	19	27	17	3	6	98
Capiz	do	44	33	19	9	26	24	13	12	1	1	105
Total		1,998	1,095	159	78	1,008	580	821	352	175	157	3,330

¹ European (female).

Tabulated statement of amount of vaccine virus distributed by the Board of Health during the month of November, 1903.

	Units.
United States Army	1,920
United States Navy	500
United States Public Health and Marine-Hospital Service	6,000
Inhabitants of the Philippine Islands (Manila not included)	18,200
Sold to the public	70
Used by public vaccinator and other institutions in the city of Manila	11,800
Total	38,490

Report on vaccination, city of Manila, during the month of November, 1903.

District.	Children.			Adults.			Total.			Grand total.
	Filipinos.	Chinese.	Americans and foreigners.	Filipinos.	Chinese.	Americans and foreigners.	Filipinos.	Chinese.	Americans and foreigners.	
Walled City	241		1	419		5	660		6	666
Binondo	59	9		221	440	3	280	449	3	732
San Nicolas	200		3	369	97	4	569	97	7	673
Tondo	558			320		1	878		1	879
Santa Cruz	388			438	10	8	826	10	8	844
Quiapo	220		2	523		20	743	8	22	773
San Miguel	243			366		5	609		5	614
Sampaloc	589		1	450		21	1,039		22	1,061
Paco	257			368	3		625	3		628
Ermita	113			254			367			367
Malate	120			174			294			294
Total	2,988	9	7	3,902	558	67	6,890	567	74	7,531

Smallpox report for Manila from November 1 to November 30, 1903.

BY RACE AND SEX.

	Cases.		Deaths.	
	M.	F.	M.	F.
Filipinos		1		1
Americans	2		1	
Total	2	1	1	1

BY DISTRICTS.

	Cases.		Deaths.	
	M.	F.	M.	F.
Quiapo		2		1
Santa Cruz		1		1
Total		3		2

BY AGE.

	Cases.	Deaths.
From 15 to 20 years	1	1
From 21 to 30 years	2	1
Total	3	2

Number of cases found "alive"	3
Number of cases found "dead"	0
Total	3

Plague report for Manila from November 1 to November 30, 1903.

BY RACE AND SEX.

	Cases.		Deaths.	
	M.	F.	M.	F.
Filipinos	2		2	

BY DISTRICTS.

	Cases.	Deaths.
Santa Cruz	2	2

BY AGE.

	Cases.	Deaths.
From 20 to 25 years	2	2

Number of cases found "alive"	0
Number of cases found "dead"	2
Total	2

Report of Chinese receiving primary and secondary inoculations against plague from Board of Health physicians, November 1 to November 30, 1903.

District.	Primary inoculations.	Secondary inoculations.
San Nicolas	346	288
Tondo	391	346
Quiapo	159	98
Santa Cruz	971	655
Sampaloc	34	
Ermita, Malate, Paco, etc	256	128
Total for city	2,157	1,515

Cholera report for Manila from November 1 to November 30, 1903.

BY RACE AND SEX.

	Cases.		Deaths.	
	M.	F.	M.	F.
Filipinos	20	7	18	6
Chinese	2	1	2	
British Indian	1			
Total	23	8	20	6

BY DISTRICTS.

	Cases.	Deaths.
San Nicolas	6	6
Tondo	8	6
Quiapo	1	
Santa Cruz	5	5
Sampaloc	1	1
Intramuros	3	1
Ermita	1	2
Malate	2	1
Paco	3	3
Santa Ana	1	1
Total	31	26

BY AGE.

	Cases.	Deaths.
From 1 to 10 years	1	1
From 11 to 15 years	1	1
From 16 to 20 years	2	2
From 21 to 25 years	4	3
From 26 to 30 years	8	7
From 31 to 35 years	5	3
From 36 to 40 years	4	3
From 41 to 45 years	4	4
Unknown	2	2
Total	31	26

Number of cases found "alive"	16
Number of cases found "dead"	15
Total	31

Epidemic of cholera in the city of Manila and provinces from March 20, 1902, to November 1, 1903.

Month.	Manila.		Provinces.	
	Cases.	Deaths.	Cases.	Deaths.
1902.				
March	108	90		
April	586	406	1,927	1,417
May	550	412	2,407	1,631
June	601	492	5,204	4,097
July	1,368	1,053	7,757	5,807
August	720	581	11,247	7,874
September	273	179	43,346	27,410
October	87	57	30,837	18,572
November	336	236	12,353	6,681
December	35	24	5,918	3,583
1903.				
January	7	4	4,921	2,757
February	2	1	2,997	2,009
March	6	6	1,903	1,124
April	33	27	1,772	1,147
May	230	212	1,402	885
June	42	38	3,554	2,945
July	42	38	4,167	2,806
August	89	72	10,212	7,406
September	230	263	4,610	3,669
October	127	118	2,497	1,935
Total	5,529	4,339	159,031	103,755

Report of cholera occurring in provinces in the Philippine Islands from November 1 to November 30, 1903.

Province and town.	Cases.	Deaths.
Antique:		
Culasi	13	8
Pandan	9	8
Total	22	16
Bataan:		
Balanga	42	27
Mabatan	1	1
Pilar	5	5
Total	48	33
Bohol, Tagbilaran	31	22
Bulacan:		
Bocaue	6	4
Bulacan	6	6
Meycauayan	2	2
Obando	1	1
Total	15	13
Camarines, Nueva Caceres	1	3
Capiz, Dumarao	71	45
Cavite, Dasmariñas	8	5
Cebu:		
Alcoy	10	10
Alegria	118	111
Alojuinsan	7	7
Asturias	69	61
Balamban	1	1
Badian	99	99
Borbon	1	1
Carcar	29	23
Cebu	1	1
Compostela	66	66

Report of cholera occurring in provinces in the Philippine Islands, etc.—Continued.

Province and town.	Cases.	Deaths.
Cebu—Continued.		
Dumanjug	5	5
Guinatalin	24	24
Oslob	1	1
Santander	16	16
San Francisco	1	1
San Fernando	23	23
Sogod	1	1
Tuburan	7	7
Tudela	39	39
Total	518	497
Ilocos Sur, Vigan	51	34
Iloilo, Iloilo	16	13
Negros Occidental:		
Bacolod	93	52
Ginigaran	27	16
Pandan	7	7
Pulupandan	19	15
Saravia	50	49
Victoria	28	28
Total	224	164
Nueva Ecija, San Isidro	2	1
Rizal:		
Mariquina	4	3
Montalban	3	3
San Mateo	5	4
Total	12	10
Surigao, Surigao	3	3
Tarlac, Tarlac	46	36
Grand total	1,068	898

WEATHER BUREAU.

Rev. P. JOSÉ ALGUÉ, S. J., Director and Chief of Bureau.

Meteorological data deduced from hourly observations, month of November, 1903.

Date.	Barometer, ¹ mean.		Temperature.								Relative hu- mid- ity mean.	Wind.						Sun- shine.	Rainfall.	
			Mean.		Maximum.		Minimum.					Prevailing direction.	Total daily motion.		Maximum.					
															Force.		Direction.			
	<i>Inches.</i>	<i>mm.</i>	<i>°C.</i>	<i>°F.</i>	<i>°C.</i>	<i>°F.</i>	<i>°C.</i>	<i>°F.</i>	<i>Perct.</i>		<i>Km.</i>	<i>Miles.</i>	<i>Km.</i>	<i>Miles.</i>		<i>h.</i>	<i>m.</i>	<i>Inches.</i>	<i>Mm.</i>	
1.	29.914	759.81	26.9	80.4	31.9	89.4	22.3	72.1	82.6	SE.	161	100	14	9	N.	4	55	0.059	1.5	
2.	29.919	59.93	25.5	77.9	28.1	82.5	22.0	71.6	85.7	N.	212	132	16	10	N.	0	00	.091	2.3	
3.	29.886	59.11	24.8	76.6	28.8	83.8	21.4	70.6	90.6	SSE.	84	52	8	5	SSE.	0	00	.024	.6	
4.	29.845	58.06	27.1	80.8	31.6	88.8	22.3	72.1	81.0	WSW.	110	68	11	7	WSW.	7	45			
5.	29.804	56.99	26.9	80.4	29.9	85.8	22.3	72.2	81.9	WSW.	130	81	15	9	WNW.	4	15			
6.	29.727	55.04	27.1	80.8	29.9	85.8	22.6	72.7	81.9	N.	282	175	21	13	NW.	2	50	.008	.2	
7.	29.675	53.72	27.0	80.6	29.9	85.8	23.8	74.8	87.6	NE., ENE.	157	98	18	11	WNW.	0	00	.051	1.3	
8.	29.691	54.12	27.1	80.8	29.4	85.0	21.6	70.9	79.0	WNW.	564	350	41	25	W.	0	00			
9.	29.727	55.06	27.3	81.1	31.0	87.8	20.9	69.6	78.7	W.	293	182	24	15	WNW.	8	40			
10.	29.794	56.74	27.1	80.8	30.5	86.9	22.6	72.7	82.0	S.	235	146	24	15	S.	9	35			
11.	29.863	58.51	26.8	80.2	30.4	86.8	21.2	70.2	81.2	S.	155	96	19	12	NNE.	6	10			
12.	29.887	59.13	27.2	81.0	31.1	88.0	22.8	73.0	76.0	SSW.	154	96	11	7	NW.	3	35			
13.	29.867	58.61	27.2	81.0	30.9	87.6	21.6	70.8	79.5	SW.	154	96	16	10	W.	9	30			
14.	29.882	58.99	27.5	81.5	32.3	90.2	22.6	72.7	79.8	NE., WSW.	124	77	15	9	N.	7	25	.106	2.7	
15.	29.861	58.46	27.3	81.1	32.1	89.8	22.0	71.6	76.7	W.	110	68	10	6	W.	8	40			
16.	29.862	58.49	27.1	80.8	31.4	88.6	21.5	70.7	78.4	NE.	142	88	12	7	W.	8	05			
17.	29.869	58.66	26.9	80.4	31.8	89.3	22.3	72.1	77.6	ENE.	162	101	24	15	N.	3	50			
18.	29.874	58.77	26.6	79.9	31.6	88.8	22.3	72.2	80.1	ESE.	150	93	12	7	E.	2	30	.020	0.5	
19.	29.898	59.39	27.4	81.3	33.3	91.9	21.7	71.0	73.5	NE.	166	103	20	12	NE. by E.	8	30			
20.	29.886	59.09	27.0	80.6	31.6	88.8	21.9	71.4	73.9	E.	178	111	21	13	E.	5	00			
21.	29.902	59.50	25.9	78.6	29.1	84.3	21.8	71.3	83.3	NNE.	125	78	11	7	NNW.	1	05	.020	0.5	
22.	29.906	59.59	27.4	81.3	31.4	88.5	21.6	70.8	76.8	W.	154	96	17	11	N.	8	35			
23.	29.926	60.09	26.8	80.2	30.6	87.1	21.3	70.3	73.6	NNE., ENE.	172	107	20	12	NNE.	6	50			
24.	29.930	60.20	26.3	79.3	31.6	88.9	20.1	68.2	69.7	Variable.	114	71	12	7	WSW.	8	00			
25.	29.924	60.06	25.2	77.4	30.8	87.5	18.2	64.8	74.1	NNW.	148	98	14	9	W. by S.	9	35			
26.	29.923	60.02	24.8	76.6	29.7	85.5	19.5	67.1	76.1	E.	152	94	14	9	W.	5	00			
27.	29.924	60.06	23.9	75.0	28.3	82.9	19.3	66.7	84.9	N.-NE.	178	111	20	12	N.	2	40	.331	8.4	
28.	29.908	59.66	25.4	77.7	30.1	86.2	19.2	66.5	81.9	W.	132	82	14	9	WSW.	7	50			
29.	29.912	59.75	25.4	77.7	28.6	83.5	20.4	68.7	86.3	NE., NW.	79	49	10	6	NW.	2	50	.177	4.5	
30.	29.908	59.66	24.8	76.6	27.7	81.8	20.6	69.1	88.0	N.	184	114	15	9	N.	1	00	.917	23.3	
Mean	29.863	758.51	26.5	79.6	30.5	86.9	21.5	70.6	80.1			172.4	107.1	16.6	10.3		5 09			
Total												5,171	3,213				154 40	1.804	45.8	

¹ Corrected for instrumental error and for temperature and reduced to sea level. Correction to standard gravity, -1.72 mm. (0.068 inch).

BUREAU OF EDUCATION.

Dr. DAVID P. BARROWS, *Chief of Bureau.**The aims of primary education in the Philippines.*

[From the Third Annual Report of the General Superintendent of Education.]

BUREAU OF EDUCATION,
Manila, P. I., September 30, 1903.The Honorable, the SECRETARY OF PUBLIC INSTRUCTION,
Manila, P. I.

SIR: I have the honor to submit the annual report for the Bureau of Education for the Philippine Islands, which is the third annual report to be made by the General Superintendent since the introduction of an American public-school system in these Islands.

Within the past year the public-school work has twice suffered the loss of a General Superintendent. In December last (1902) Dr. Fred W. Atkinson, after two and one-half years' service in this capacity and after having organized the public-school system practically as it stands to-day, resigned his position in order to return to the United States and continue there his profession as a public educator, which was interrupted by his acceptance of duty here. He was succeeded by Dr. Elmer B. Bryan, then principal of the Manila Normal School, who, to the great disappointment and regret of everyone interested in education, was obliged by serious ill health to resign his position August 13 last. The undersigned was appointed to succeed him, and has been in charge of the work only a few days over one month.

REVIEW OF LAST THREE YEARS' ADMINISTRATION.

In reviewing the history of the Islands for the past three years one is immediately struck by the great emphasis placed upon public schools, first, by officers of every rank of the United States Army who administered this Archipelago during the first two years of American sovereignty, and subsequently by the United States Philippine Commission and the Civil Government of the Islands. This emphasis upon the public school is undoubtedly the result of the primary importance which it plays in American civilization and the supreme confidence which Americans feel in the necessity, to this and to every aspiring people, of a democratic, secular, and free school system, supported and directed by the State. It has resulted that the school system of these Islands is the most typically American institution which our Government has here established. Spanish precedents and previous institutions have been followed to a strikingly less degree than in the organization of local and insular administration, the constitution of the courts, or any other branch of administration.

The definite purposes in introducing this educational system are unique in the history of colonial administration. Professedly, openly, and with resolute expectation of success the American Government avowed its intention through the public school to give to every inhabitant of the Philippine Islands a primary but thoroughly modern education, to thereby fit the race for participation in self-government and for every sphere of activity offered by the life of the Far East, and to supplant the Spanish language by the introduction of English as a basis of education and the means of intercourse and communication. Almost impossible as such purposes may have looked and still look to the outsider, and thoroughly as they have been the objects of criticism, the Bureau of Education and the Philippine Government are more thoroughly committed to this policy now than at any time during the past five years, are more certain of success, and are able to demonstrate by the results already achieved that the ends early set up can and will be reached.

It is the general character and reasons for this system of

primary schools which I wish to discuss in this first part of my report.

CHARACTER OF AND REASONS FOR A SYSTEM OF PRIMARY SCHOOLS.

(a) *Secular schools desired.*—Such an educational plan would never have been practicable had it not been in fact the demand of the Filipino people themselves. Thoroughly American as our school system is, it represents the ideas which theoretically have appealed to the Filipino. His request was for free secular schools, open to all inhabitants and teaching the English tongue and the elementary branches of modern knowledge. His struggle with Spain had sufficed to convince him that he was limited in thought and action by a medieval system which is no longer recognized as of binding force in the modern world, and this feeling has caused his prompt acceptance of whatever appeared to him or was presented to him as of modern type. The Filipino is essentially a radical. Contrary to what sometimes has been stated of him, he is one of the least conservative types of manhood. In readiness to seize the new, to welcome advancement, and in ambitious pride he is closer to the Japanese than to any other nationality.

(b) *Last half-century of Spanish rule—Economic interests.*—The last half-century of Spanish rule brought to the Filipino people great changes that made possible the striking revolutionary events of the last seven years. The race made a great advance between 1860 and the end of the century—an advance due primarily to the enlightened efforts of the liberal element in Spanish political life. The reactionary policy which followed the fall of Republican government in Spain and the Cavite revolution of 1872, and which aimed to suppress the rapidly rising ambitions of the Filipino people, has greatly obscured the intelligent and deserving efforts made by the liberal element in the Spanish administration toward developing both the economic and spiritual interests of these Islands. As a matter of fact, for nearly forty years Spain's policy in these Islands was one of reform. A serious and disinterested policy strove to remove the economic hindrances which had so long checked the development of the Archipelago, and to enlighten and elevate the race. We see the first of these changes in the opening of Manila to foreign trade in 1837. This was the beginning of the economic advancement of the Islands and was followed by the development of the commercial products which have made the Philippines famous—hemp, tobacco, sugar, and copra. An almost uninterrupted era of economic prosperity followed down to the end of Spanish rule. The Philippines received many governors of liberal political ideas, conspicuous among whom was Claveria, 1844 to 1849. From his governorship we may date the final relief of the Islands from Moro piracy, the reform of Philippine administration, and the beginnings of the great changes in the aspirations of the Filipino people themselves.

But of equal importance with any other change was the opening of education to the Filipino. Previous to the middle of the last century there was, practically speaking, none. The famous collegiate institutions of this city, which date almost from the foundation of Manila itself, were designed, not for the Filipino, but for the children of the Spanish colonizer and administrator. Education in the parishes had been left solely to the direction of the *cura parroco*, or village friar, and was limited to elementary religious teaching. But, in 1860, a system of public primary institution was established by the famous Spanish minister of war and colonies, O'Donnell. A primary school for boys and one for girls was decreed for each pueblo of the Archipelago. In these schools instruction was to be given in the Spanish language. A superior commission of education was formed, consisting of the Governor, the Archbishop, and seven other members added by the Governor himself. Spanish plans work out into actual results very slowly, and it took years to fully realize the ideas which appear in these first orders and decrees, but at the end of Spanish rule practically every pueblo in the Philippines had its two public schools, for boys and girls, with Filipino teachers who

had been educated in the Spanish language and the elements of knowledge, and on every little plaza there stood, along with the tribunal, the jail, and the far more pretentious and older church and convent, public buildings for schools. These schools by no means conformed, however, to American ideas of a public educational system. In the first place, they were hopelessly inadequate to give enlightenment to the entire population. Filipino pueblos are in reality townships or districts that sometimes extend over many square miles of country and contain scores of small hamlets or barrios scattered at considerable distances from the *centro de población*. It does not seem to have been the Spaniard's effort or intention to educate the children of these obscure and humble hamlets. Buildings at the center, while sometimes well constructed, were small, and usually not more than one man and one woman teacher were employed. Forty to sixty pupils in each is certainly not underrating the school attendance in the towns whose population varies from eight to twenty thousand souls. The result was that these schools gave to the children of Filipinos of means, who could afford to build and maintain homes in the town center, an opportunity for elementary education and a fitting to pass to the more pretentious *colegios* of important cities and, above all, of Manila, but they did not help or enlighten the great mass of the population. The result, combined with the economic changes that were taking place, was vicious and unfortunate. The continually rising plane of material prosperity which followed the opening of foreign commerce and the development of new commercial products was participated in by only one class of the Filipinos themselves. This was the old petty aristocracy, the class known anciently among the Tagalog as the "*maharlika*," who became under the Spanish administration the *principales* of the pueblo, and who are to-day known by such quaint designations as "*gente ilustrada*" and "*pudientes*." This class it is that has monopolized not only the great gains in material prosperity but also such enlightenment and education as the race has gained. The result has been more than ever to divide society among the Filipinos into two sharply differentiated classes, the first of which is the very small number of educated families who own rich haciendas, buildings, and other sources of wealth, who live in beautifully built houses adorned with the artistic woods of the Islands, who speak the Spanish language, who have possessed themselves of the charm and grace of Spanish manners, and who seldom fail to attract and delight the guests that with unflinching hospitality they receive into their homes. This class is, however, but the merest fraction of the race itself—ten to a dozen families usually in towns of from ten to twenty thousand people. The rest of the population, which forms the lower class, has been left in an unchanged condition of ignorance and poverty, and its dependence upon and submission to the dominance and control, both economic and intellectual, of the *gente ilustrada* has been continually accentuated by each added gain acquired by the wealthy class.

(c) *Spanish school system*.—In the second place, the Spanish school system, though founded and supported by the Government, was never secular in character. The Spanish friar, who was the pueblo curate, was always the local inspector of the school, and not only directed its conduct but determined the subjects which should be taught. In the brief and imperfect course of primary instruction which was given in these little schools church catechism, church doctrine, and sacred history were emphasized almost to the exclusion of the other subjects which are necessary to fit the Filipino child for his position in life, whether it be humble or fortunate. This, however, was not the only undesirable effect of this arrangement. Whatever may be said in praise of the work of religious orders in these Islands, it can not be denied that their attitude, during the last fifty, and particularly the final thirty years of their influence here, was excessively hostile toward the enlightenment of the Filipino. They actively sought to debar the Filipino from any sort of

modern knowledge, from gaining a position of independence and self-respect, and from entrance into any kind of leadership of his own race. It was, in fact, this obstructive and retrogressive policy on the part of the governing class that most immediately affected their lives, that provoked the Filipino into open hostility and rebellion.

Thus, while we find much to commend in the public-school system established by the excellent O'Donnell over forty years ago, it is apparent that it neither gave opportunity to the little child of the humble fisherman and husbandman, nor did it lift the Filipino toward that truth which makes free.

(d) *American school system in the Philippines*.—In building up here an American system of public schools we necessarily form our purposes with a view to the failures of the past, and this previous experience compels us to adopt certain ideals, which may be briefly stated at this point.

In the first place, American schools must be public and secular. Very grave doubts were at first entertained whether it would be possible to maintain here a system of schools which did not give religious instruction and which did not place dependence upon the assistance of the church. The Government, in its opening efforts, was advised and admonished that the Filipino would support no form of instruction that was not primarily Roman Catholic in character. There has been no case of greater misrepresentation. The experiment of secular public schools in these Islands is now nearly three years old, and the result is seen that the Filipino father, while with few exceptions sincerely desirous that his child should be trained in a knowledge of those religious precepts and ceremonies which have for centuries formed the only higher life of the great mass of this population, is nevertheless equally desirous that his intellectual advance should be unaffected by ecclesiastical control, and that the instruction of the church should be separate from that of the school. This choice is becoming more marked with every succeeding month and has practically done away with any effective opposition on the part of church authority.

In the second place, the public schools of these Islands must be open to all upon a purely democratic basis. This is a point in which, perhaps, there has been more difficulty experienced than with the preceding. The cultivated man among the Filipinos, even when fairly bursting with protestations of his patriotic solicitude for the advancement of his more humble countryman, is in reality frequently contemptuous of their illiteracy and poverty and actually opposed to any enlightenment which will loosen his own hold over them. The greatest danger at present menacing the success of our schools is that, pleased with the capacity and cleverness of the youth of the cultivated class and desirous of forwarding his success along the higher levels of education, we may forget the primary and essential importance of educating the child of the peasant. If we fail here we will fail precisely as our predecessors did. The public welfare and public security demand in the Philippines, as perhaps nowhere else in the world, *primary education for all classes*. The race lends itself naturally and without protest to the blind leadership and cruel oppression of its aristocracy. This social condition, which the Spaniard called "*caciquismo*," every measure and plan of the government of these Islands should aim to destroy.

In the third place, and as a necessary corollary to the above, our public school system should be adequate to the population. It is not so at the present time. We have only begun to reach the population of the barrios. We have succeeded in reestablishing schools, with perhaps four and five times as large an attendance, in the town centers where the Spaniards conducted them. We have raised these schools to an English basis, but we have not yet sufficiently extended this instruction to the hamlets and little settlements which lie back in the woods and along the *esteros*, sometimes a dozen miles from the center of the town. It is in these rural spots that the great mass of the population

finds its home. These are the centers of ignorance, the resorts and recruiting ground for the ladrones, and they perpetuate the ignorance and poverty of the race, as it has been for three hundred years. The greatest need of our schools at the present time is Filipino teachers with knowledge of English and school methods and the missionary spirit to go out and labor in these barrios under the supervision of American teachers.

POPULATION OF THE PHILIPPINE ISLANDS—DIALECTS.

The Christian population of the Philippines comprises, according to the published results of the recent census, nearly seven million souls, or nine-tenths of the entire population of the Archipelago. They occupy hardly more than three-sevenths of the total superficial area of the Archipelago, but this includes nearly all of the fertile coastal plains and river valleys and the greater part of the Islands susceptible of much agricultural development and able to support large numbers of inhabitants.

This population has multiplied very rapidly within recent decades. The development of productive agriculture and export trade has created a rapid increase of the population in all parts of the Islands affected by this material prosperity. The Christian population is over four and one-half times what it was a century ago and more than ten times as great as it was when the Spaniards first Christianized the Islands.

As is well known, this Christian population, while of common Malayan origin and possessing a culture in most respects the same, is divided into a considerable number of tribes or distinct groups.

So much has been written and affirmed of the similarities and distinctions between these tribes, and the subject has borne so intimately upon the work of the Bureau of Education, that a brief statement seems in place in regard to these different groups which the policy of the American Government favors welding into one nation with a common language, a common appreciation of rights and duties and a common patriotism for their land as a whole.

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The question has been frequently raised whether these Filipino languages are sufficiently related so as to fuse into one common tongue, and the Bureau of Education has received most vigorous criticism in the United States because of its alleged attempt to supplant and destroy what might, in the opinion of absentee critics, become a national and characteristic speech. Such criticism could only proceed from an ignorance of these languages and the peoples who speak them. All of these dialects belong to one common Malayan stock. Their grammatical structure is the same. The sentence in each one of them is built up in the same way. The striking use of the affix and suffix which gives the speech its character is common to them all. There are, moreover, words and expressions identical to them all. A hundred common words could readily be selected which would scarcely vary from one language to another. But the fact still remains that, while similar in grammatical structure, these languages are very different in vocabulary—so different that two members of two different peoples brought together are unable to converse or at first even make themselves understood for the simplest steps of intercourse. The similarity of structure makes it very easy for a Filipino of one people to learn the language of another, but nevertheless these languages have preserved their distinctness for more than three hundred years of European rule and in the face of a common religion, and in spite of considerable migration and mixture between the different tribes. This is as true where different populations border one another as elsewhere. In no case is there any indication that these languages are fusing. The Filipino adheres to his native dialect in its purity, and when he converses with a Filipino of another tribe ordinarily uses broken Spanish.

These languages are not destined to disappear, but it does not seem probable that they will fuse, nor that they are destined to

have wide literary use. One has but to examine the writings which have appeared in the last fifty years in each of these languages to see how unlikely of literary development is any one of them. The masterpiece of Tagalog literature is a satirical poem entitled "Ang Salita at Buhay ni Florante at ni Laura," which was composed years ago by a Filipino "filósofo" named Baltazar. It was his professed intention, in writing this poem, to use the Tagalog language in its purity, and he continually strives to avoid by circumlocution the introduction of words derived from the Spanish. The poem, while of great interest, shows the actual paucity of the Tagalog language for the expression of literary ideas, and it has not, so far, marked a beginning of the development of a Tagalog literature. For common intercourse, as well as for education, the Filipino demands a foreign speech. To confine him to his native dialect would be simply to perpetuate that isolation which he has so long suffered and against which his insurrection was a protest.

THE ENGLISH LANGUAGE.

Opponents of English education find few sympathizers among the Filipino people. The movement seems to be limited for its support to academic circles and certain newspaper offices of the United States and to the congressional halls of the nation. The advantage which the possession of the English language will give him is readily understood by the Filipino, and it is fortunate that the acquisition of the Spanish tongue was largely denied him and that it never won his affection. English is the *lingua franca* of the Far East. It is spoken in all the ports from Hakodate to Australia. It is the common language of business and social intercourse between the different nations from America westward to the Levant. It is without rival the most useful language which a man can know. It will be more used within the next ten years, and to the Filipino the possession of English is the gateway into that busy life of commerce, of modern science, of diplomacy and of politics, in which he aspires to shine. Knowledge of English is more than this—it is a possession as valuable to the humble peasant for his social protection as it is to the man of wealth for his social distinction. If we can give the Filipino husbandman a knowledge of the English language and even the most elemental acquaintance with English writings, we will free him from that degraded dependence upon the man of influence of his own race which made possible not merely insurrection but that fairly unparalleled epidemic of crime which we have seen in these Islands during the past few years.

"LABOR"—THE PEASANT-PROPRIETOR CLASS.

Another form which criticism frequently takes, not alone in the United States but among Americans in these Islands, is that in giving the Filipino this primary education we are impairing his usefulness as a productive laborer, separating him from agriculture and the trades, making every schoolboy ambitious to become an *escribiente* and filling the minds of the people generally with distaste for rural life and contact with the soil. This is a charge which merits careful examination and which leads to some observations upon the society and industry in the Philippines which this Government, in the prosecution of its high purposes, must consider. American investors and promoters in the Philippines at the present moment profess to be disgusted with the Filipino as a laborer, and are clamorous for the introduction of Chinese coolies. They claim that the Filipino hates and despises labor for itself, will not keep a laboring contract, and can not be procured on any reasonable terms for various enterprises in which the Americans desire to invest effort and money. When, however, we look a little more closely into the demands of these men it is apparent that what they really want here is a great body of unskilled labor, dependent for living upon its daily wage, willing to work in great gangs, submissive to the rough handling of a "boss," and ready to leave home and family and go anywhere in

the Islands, and to labor at day wages under conditions of hours and methods of labor set by their foreign employers. In other words, what they really want is the *proletariat*, that social class, the outcome of recent economic changes in Europe and America, which it is the ideal aim of political economists to elevate and absorb until it shall disappear again in the ranks of independent and self-respecting labor.

Now the Filipino certainly dislikes labor under these conditions, and except under extraordinary inducements it is probably true that he will not work in a gang, under a "boss," subjected to conditions for toil which appear to him unnecessarily harsh and onerous; but give him a piece of land to cultivate, especially if he can be assured that it is his own, let him choose for his labor the cool, dark hours of the early dawn and evening, let him work in his own way *unharassed* by an overseer, and the Filipino makes a creditable showing as a laborer. It is as an independent producer that he works best, and this, as well as every other consideration, should impel us to seek to develop here in the Philippines, not the proletariat, but the *peasant proprietor*. Unfortunately, conditions are unfavorable in many parts of the Islands to small holdings. Property exists in great *haciendas* or the estates of the religious orders, and the population are dependent tenants. But it is the intent of this Government to purchase or secure many of these great properties for the benefit of a peasantry who live upon them, and, in spite of delay in the settlement of this essential matter, I believe we may look upon it as one of those pressing necessities in which the American Government will, eventually, have its way. Wherever we find the Filipino the possessor of his own small holding, there we find him industrious and contributing largely to the productive industry of the Islands. I have in mind one beautiful little valley in the Ilocano country, famous for the quality of its tobacco, where the land-tax collections showed, a year ago, 2,200 small independent properties in a single municipality.

It is with the peasant-proprietor class particularly in mind, and trusting in the outcome of our efforts to increase this class, that we must lay out our course of primary instruction. If the Filipino has his small home and plot of ground, then, the possession of English, the ability to read, the understanding of figures and those matters of business which affect him, even the knowledge of other lands and peoples will not draw him from his country life and labor. It will, I hope, increase his contentment as it increases his independence, and as it raises his standard of life and comfort and increases his desires it will make him a better producer and a larger purchaser.

INDUSTRIAL ART AND HANDICRAFT.

I believe we may be equally hopeful with regard to training the Filipino in arts and crafts. The Filipino is naturally deft with his hands and has much artistic ability. That same high grade of excellence which attaches to the handiwork of the Japanese people can certainly be imitated here, and may, perhaps, in some ways, be excelled.

No small part of the work of the Bureau of Education lies in introducing new crafts which shall make special appeal to the artistic-loving qualities of the Filipino mind, and in training up skilled workmen for the establishment of these arts. I am convinced also that the Filipino will not be found incapable or averse to following the heavier and more laborious trades, especially when these are presented to him in the form of skilled handicraft and when their pursuit is assisted and improved by the employment of the best methods and of machinery.

Many doubts have been thrown upon our power to interest educated Filipinos in arts and crafts. It was said that all the influence of the civilization of the Islands was against us. The Spaniard certainly looked down upon skilled handicraft of every description and considered such callings impossible for the educated man, and this unnatural and false view has unquestionably

impressed the educated class of Filipinos who owe their ideals to Spanish cultivation, but this attitude, while it is unfortunately frequently met, is not a racial characteristic but is certainly derived from foreign influence and example.

The typical Malayan peoples show great respect to the man skilled in body and hand. If we look at those tribes in the Philippines which did not come under the influence of the Spanish civilization, the primitive Igorrote and the more advanced Moro in the south, we find that the man skilled with tools enjoys a high reputation. This is especially and interestingly marked among the Moros. Mohammedanism has never despised the artisan or the trader. In Mindanao and the Sulu Archipelago at the present time even the datu or chieftain is often a famous forger of weapons and may spend many hours each day beside his anvil and bellows. There is a *salip* or religious leader of great influence on the Island of Basilan who is famous as a boat builder.

These facts show the true racial feeling, unaffected by foreign ideas, and should encourage us to hope for an attitude on the part of the Filipino people that will be favorable to the practice of skilled arts and trades. The early efforts of the Bureau of Education met with little response from the Filipinos of Manila. The young *elegante* appeared to disdain to soil his fingers with the grip of a tool, but in recent months tool and garden work have been undertaken in a number of school divisions and in every case with the most satisfactory response from the pupils, who are frequently children of wealthy and educated parents.

SUMMARY.

The above remarks may serve to characterize the main purposes of the Bureau of Education, which are to reach and enlighten all classes in the Archipelago, assist in the development of an intelligent and independent husbandry and of a trained class of craftsmen, and by its schools and instruction contribute to make the Philippines as famous for its intelligence and productions as is the northern archipelago of Japan.

Excerpts from reports of division superintendents to the General Superintendent of Education.

PROVINCIAL PRIVATE SCHOOLS—SPANISH.

PROVINCE OF BATANGAS.

In December, 1901, I made a report in answer to a circular from the General Superintendent's office, containing among other data a statement as to the different kinds of private schools then in the division. The particular kind of private school which has received most development is to be described as follows: Some relative, or friend of a family, or two, takes a dozen children into his house during the day to study. He goes on with his daily occupation, or else sits around and smokes and gambles with friends while the children are supposed to study. He spends very little time in instructing them and they very little time in actual study. Cathecism is a main part of the curriculum, and, indeed, the school, or rather, class, exists because of the desire for religious instruction.

However, the number of private schools and their attendance has been steadily on the wane. One proof of this is seen in the doubling and trebling of our attendance as compared with last year and the year previous. The presence of a good public school usually kills the private schools by reason of its superiority. We attract pupils even from the Spanish schools in Manila. Not often do the best families send their children to us, but this is becoming more generally the rule. Again, our teachers in many cases come from the very best families, and this means a great deal in a land where class distinctions are so great and closely observed. The "muchacho" may still carry the books of his little master to school, but often enough the older sister, or brother, of this little master is teaching the "fellow-muchachos" in the same school.

The greatest bit of industrial education engaged in so far by the American teacher has been the example set by him in carrying a package, etc., through the streets and thereby showing the natives that a little manual labor is not incompatible with honor and dignity.

NORMAL INSTITUTES.

The Normal School curriculum included the regular elementary subjects of the primary schools and a normal course. Music was taught especially in connection with the singing of appropriate school songs. An interesting feature of the work was the hour or more in the afternoon devoted to conversational games of all sorts, debates, mock trials, etc.

After this exercise the young men played baseball. Any player who spoke a word of any other language than English was immediately retired from the game. By the way, in this connection I should like to mention the names of Messrs. Pierce, Borden, and Carstens as teachers who have devoted considerable time to teaching the boys this game in general. Some interesting games have already been played, and the game is gaining in favor. I have always found baseball a good way to interest the children in school. It was the way we first interested the Moro boys in Jolo.

Our teachers average rather under than over 25 years of age. All, except one, of the very old native teachers have fortunately dropped out, so that what was once a great problem, namely, to get rid of them, is no longer so. Most of them have voluntarily relinquished the work seeing that they were no longer able to carry it on. A few were discharged for utter incompetence, but it was unwise to get rid of them wholesale for fear of offending the neighborhood where many had acquired influence. The one exception, an old lady of 53, at Tanauan, sticks to it and has made remarkable progress. Her pronunciation is very good.

The proportion of young women attending these new schools is very large and is due to the influence of the public schools and especially to the Vacation Normal Schools. Our best pupils do not want to become teachers now but prefer to continue their school work, which is, it seems to me, a very good sign. The average age is high in the high schools. The reason is, as I have hinted before, that there are many elder children and young people who were "ashamed" to go to the primary school. Some have had considerable Spanish education. These naturally make rapid progress as a rule. In the high schools established outside of Batangas the proportion that came from the primary schools is less than half of the whole this year for the reason already explained. These outside pupils average very high in age, say 18 or 20 years. A few pupils of this age, say some dozen in each large primary school, attended the primary schools last year. Many more attend this year, through the influence of the Normal School and of the high schools, which is making education popular among the young people.

There is an enthusiasm such as has never before been known among the young people. The children have shown this disposition before, but it has not hitherto extended in any great degree to the young people from 18 to 25 years of age. There is a great eagerness to talk English. They accost each other in the streets in English and it is becoming a habit to use it as a "court" or society language. This was true of Spanish, but not nearly so many ever got instruction in Spanish as are profiting by the English. The Government should take this tide at its "full." Learning English may not teach them the unrighteousness of insurrection, but it will teach them the utter uselessness and folly of it. This is precisely what the young men of Lipa and Taal, those two strongholds of Tagalo pride and feeling, need.

PROVINCIAL SCHOOLS.

PROVINCE OF TARLAC.

Probably the most important event of the year was the establishment of the provincial high school which opened the beginning

of the school year. The enthusiasm, interest, and application of the students, while in attendance at the Normal, together with the marked progress of the majority, seemed to warrant the success of such an institution. That this new feature was received with favor is evidenced in the fact that the provincial board immediately took steps toward the construction of a high school building. The provincial school and the Normal School have been the cause of awaking a new interest in the children of the primary schools, for many a child has been kept in the municipal school with the hope of soon being able to enter the provincial school. The provincial school adds dignity to the whole school system, and the people realizing more and more its relation with the municipal schools attach more importance to the latter. Parents are ever eager to enter their children in the higher schools, but are loath to send them to the primary. Consequently children are frequently sent to the Spanish colleges in Manila with the hope of having them enter the provincial school later. The announcement that no teachers will be appointed unless they have attended this school has been effective in keeping in the municipal schools young men and women until they are able to enter the high school.

PROVINCIAL BOARDING SCHOOLS.

PROVINCE OF OCCIDENTAL NEGROS.

The Rizal Institute.—At present the province rents for the Rizal Institute two commodious buildings. Ninety-five pesos, local currency, a month is paid for one which is used exclusively as a boys' dormitory. One hundred and fifty pesos, local currency, is paid for the other. This is used as a girls' dormitory and class room.

Four American teachers are now working in the institute. The many inquiries being made by people in all stations in life show the general interest taken in the expected arrival of the manual training teacher.

All persons over 12 years of age, whose general scholarship meets the approval of the principal, are admitted to the institute and to the dormitories. At present a knowledge of English is not a necessary qualification for matriculation. Three classes of students, internos, medio-internos, and externos, are received. The internos live in the dormitories and pay for their living expenses 15 pesos monthly in advance. The medio-internos live in their own homes and take their midday meals in the dormitory, for which they pay 7½ pesos, monthly, in advance. The externos provide for themselves all their living accommodations outside of the dormitories.

Both dormitories are made as homelike as possible. Beds and chairs are furnished by the province, and pictures are hung on the walls. The girls' dormitory, which is under the care of Miss Sofia Reyes, is provided with an excellent piano. Mr. Ray Howell, principal of the institute, lives in and has charge of the boys' dormitory. These dormitories are a very helpful and necessary feature, as they furnish a home for many pupils whose parents live at distant points in the province and who, otherwise, would not be able to attend. More, it gives them a practical opportunity to learn domestic science and to know what home life may be.

During August, 1903, the average daily attendance at the institute was 54 boys and 27 girls; total, 81. From September 7 to November 10, 1902, the institute was closed because of cholera. After the reopening of the institute there was a steady growth in attendance and popularity. In March, 1903, the attendance was 57 boys and 38 girls; total, 95.

The new year has opened very encouragingly, as those seeking admission have come from all parts of the province. The attendance on July 15, 1903, was 103 boys and 63 girls, a total of 166, and an increase of over 100 per cent since last August. The present indications are that this number will continue to increase throughout the coming year. Demand for admission into the dormitories is such that it will soon be necessary to move the girls' dormitory from the school building into a house of its own.

At the outset, June, 1902, the provincial treasurer was the only one of the provincial board in favor of the high school. The governor was indifferent and the supervisor avowedly hostile. The success and popularity of the school has been so marked that now all are friendly and willing to assist in many ways.

TEACHERS.

PROVINCE OF PANGASINAN.

American teachers.—Much, if not everything, depends upon the personal qualities of the American teacher. Occasionally one meets an American teacher who is constitutionally unable to adapt himself to the conditions prevailing in the average pueblo. He is incapable of dealing with the presidente and other important residents of the town, and generally ends his term of service, as he began it, without credit to himself or the Department. Such a teacher lacks first and foremost discretion. He offends when a little tact and graciousness would win; he makes enemies who are in a position to do injury and who will not hesitate in making their influence felt; he is incapable of assuming the responsibilities of his position, because he dislikes the work and the people, and finally does not care whether the school over which he is placed succeeds or not.

It is believed that very few teachers of this kind are at present in the Department. At the first opportunity they resigned. Many were summarily dismissed. Those who have remained are generally the ones who have succeeded, and are succeeding. In my judgment there is not at present one really inferior teacher in Pangasinan. The force has been winnowed and, with very slight exception, those remaining are energetic, enthusiastic, reliable, and highly respected by the Filipinos. I am of the opinion that such teachers have not received full justice in the popular mind. It has been, almost invariably, the malcontent who has succeeded in advertising himself. He has said too much, has written too much, has talked nonsense, and neglected the one essential thing—the thing he was paid a salary for—his work.

The duties of an American teacher assigned to a pueblo are many and require continual and close attention. The most important is to grasp the whole situation and to assume the responsibility for the schools. He can not sit in the school room and wait for things to adjust themselves. He must know the people, their customs, prejudices, and ways of looking at life. The high class Filipino is polite and courteous; social amenities and agreeable personal qualities (externals perhaps) count much with him. He is opposed by nature to a blunt peremptory way of doing things and resents, in silence, an explosive outburst of energy whether it be well or not. He prefers to take life easier, even though certain duties are not performed promptly and fully on the spot. No American teacher, or other official, can afford completely to ignore these prejudices. They are constitutional and in a measure must be recognized. The American teacher of tact and judgment will make a compromise. He will not assume an attitude of arrogant superiority verging upon contempt, but will endeavor to win his way by showing a spirit of tolerance. If he can not show some degree of sympathy he need not go to the other extreme of utter scorn. The American teacher is really in the position of a superintendent and as such he can not escape his duties if he would. A time comes when he must face the result of his past work and there is no chance to avoid a reckoning. It is my opinion that the rank and file of the present American teaching force is worthy of all consideration. These men and women have proved themselves. Their work is no longer an experiment, and the friendly attitude and kindly spirit of the Filipinos everywhere toward the public schools are due in the main to the untiring efforts of the American teacher.

Filipino teachers.—(a) The general character of the provincial native teacher.—The native teacher in the provinces is a representative of the better class of Filipinos. He is invariably well dressed, courteous, and accommodating, and he has the respect of the people. From the American point of view he is not,

however, competent to regulate a school, nor well qualified by nature to be genuinely educated. He lacks energy and can not successfully maintain a daily routine of work. He is inclined to be slack in matters of punctuality and sees no special reason for exerting himself to be on time in the morning at the opening of the daily school session, nor of maintaining a strict supervision of the pupils' work when once he has taken his place in the school room. To do the same thing every day and to try hard to do it better each successive day is something that the Filipino teacher has not yet learned to appreciate. He is not ambitious to succeed; that is, a very small success seems sufficient to satisfy him, and he is unwilling to put himself to serious inconvenience in order to improve his education and make his services valuable.

The above statement will, as a rule, hold good, but there are notable exceptions, and the number of these has been steadily increasing during the two years of American schools. The example set by a good American teacher in controlling and teaching a school has taught the Filipino more than his daily lessons in English and arithmetic. The object lesson thus furnished is being learned slowly, but without doubt surely. The Filipino teacher has gained something of perspective and, in a degree, has succeeded in being able to think of more than one thing at a time. This part of his education, which has come seemingly without volition and unconsciously, is the most valuable thing the American schools have given him. There was a time when he thought it not inappropriate to take his seat during the entire session, to ignore pupils not reciting, to smoke a cigarette before the class during school hours, to pay no attention whatever to the roll call, and finally to pass unnoticed the entire subject of school-room decorum and discipline.

From the purely academic point of view it will be some years before the provincial teacher can achieve much. The intellectual and moral background of his life has been formed during a period of unrest and agitation. The history of the Philippine Islands for the fifteen years preceding American occupation discloses a series of political and social disorders under whose depressing influence small attention could be given to educational institutions. The Filipino who has, during the last three years, reached the age of twenty-five, passed the formative period of his life during a time of turmoil. He has not had a fair chance, and it is perhaps true that he will never readjust himself completely to the new régime. There are native teachers in this division to whom this does not apply—teachers who have fallen quickly and easily into the routine of the present system of schools and who are reliable, energetic, and intelligent; but their number is small. An extended period of education is yet necessary, if the native teaching force is ever to be brought to that stage of efficiency which will enable them to take the place of American teachers. This is true from every point of view, whether we consider scholarship, power to assume responsibility, practical knowledge of school-room discipline, courage to face opposition, or ability to take the initiative in matters connected with the improvement of the schools.

(b) *Instruction of the native teacher.*—From the first it has been assumed in this division that the most valuable and necessary work which the American teachers can do is that of instructing the native teachers. The scheme of each yearly school session has provided for a ten weeks' normal institute in a pueblo centrally located at which all native teachers have been required to attend. All other adult Filipinos who have sufficient intelligence to do so have been invited to enter. A further effort has been made to induce every bright boy or girl of 12 years to take advantage of this opportunity.

The work, however, of these normals has been planned specifically for the native teacher, and besides the regulation academic curriculum a model school of young children has been established in order to give him practice in the actual instruction and discipline of a school under the immediate supervision of American

teachers. This model school has been composed of pupils ranging from 7 to 16 years of age, the intention being to furnish an *average* pueblo school with none of its difficulties absent. Each native teacher has been required to give two of the ten weeks to work on regulating this school, which has proved one of the most satisfactory features of the institute.

The normal for the year, now in session at Dagupan, has been an agreeable surprise to all concerned. There are approximately 400 teachers and adults enrolled and 130 *aspirantes* or advanced pupils. The number of *aspirantes* and advanced pupils at Lingayen is near 400, thus bringing the entire enrollment for the province to about 900. These numbers, while significant, do not indicate the excellent spirit of these students nor the quality of work being done. Their enthusiasm and good will has won the American teachers to the most patient effort. During the ten weeks the American teacher becomes well acquainted with the most intelligent natives of this province, and the native is given an opportunity of understanding and participating in a kind of social life to which he has been unaccustomed.

PROVINCE OF RIZAL.

Towns left without an American teacher, from whatever cause, show clearly that schools in this division are not successful under the charge of a native teacher only. Several instances of this fact have occurred. Mariquina, under the charge of an American teacher, had an enrollment of 250, but, when Mr. Gurley left, the enrollment dropped to 20. Taguig had an enrollment of 70 under the charge of Mr. Du Hadway, but, when he left, the enrollment dropped to 15, though more native teachers were provided.

This influence of American teachers has been felt in thirteen towns. There are reasons for the older pupils to drop out when the American teacher leaves the town. In all the towns now, the "A" class pupils of the school are advanced too far to receive instruction from the native teacher. When the native teacher attempts to conduct the "A" classes his work is usually a failure. He lacks the education and sufficient interest to hold the pupils in the school. It discourages him to think that his work is beyond him. He causes dissatisfaction in himself, in the town, in the school, and eventually the children drop off, and school is finally closed for want of attendance.

This province has only eight native teachers who can fill the bill in the school room, required by law, without daily American supervision. It would be a good idea to have these eight teachers put on insular pay sufficiently remunerative to induce them to go to the towns that are now suffering for the want of American teachers or good native teachers. These towns now must be satisfied with poor native home teachers, or take none, for they are unable financially to pay the salary to induce efficient native teachers to go to their towns. The division is in need of more good native teachers, but it has no more sufficiently advanced to receive insular recognition.

PROVINCE OF TARLAC.

Each American teacher devotes five hours a day to actual teaching, four hours are given to the pupils of schools, and one hour to the native teachers. In some schools the one-session plan has been tried, proving satisfactory to both teachers and pupils. In the town of Tarlac the one-session was followed, but instead of having a special class for the native teachers, they were entered in the classes in the provincial school, and the American teachers of the municipal school took charge of the classes in this school. This year it is thought best to adopt a uniform plan for all the schools, and since the one-session plan seems preferable and more suitable, the following arrangement has been suggested: Morning session, for pupils, from 7.30 to 11.30; teachers' class, afternoon, 3.30 to 4.30.

The work in the teachers' classes in the past has largely consisted in instruction in English, but now since more of the teachers possess a fair understanding of the language, it has

been deemed advisable to devote the hour to the discussion of and instruction in methods of teaching. The teacher brings up for discussion anything pertaining to the school work. He takes this time to help prepare the lessons for the following day, showing the best way of presenting a new idea, calling attention to some point which needs to be emphasized; in fact, he should make his teachers feel that this is the time for them to unload their troubles and receive advice and assistance.

Filipino teachers have been in charge of five towns during the past year. No great results were expected on account of the small knowledge of English of the teachers, but these schools were established to satisfy the demands of the people, and it is surprising to note what some of the little people have learned. These schools have been the means of getting into the Normal School some few who otherwise would never have entered.

It has been difficult to get good teachers for these smaller towns. Naturally the best teachers are found in towns with American teachers. The Filipino teachers prefer to remain at these places because of the opportunity of learning English, and moreover, they attach a certain honor to such positions; on the other hand they regard the smaller towns in the same light as barrio schools which are beneath their dignity. It may be added that the Filipino is loath to leave his town and the townspeople are not willing that an outsider should come; the sending of an outsider in several instances has been the cause of trouble. In such cases the officials make a complaint against the teacher on some pretext; when an examination of the matter is made it is generally found that either he is not a "natural," or that he is of a different class from the majority of the townsfolk or most influential faction.

THE CHOLERA EPIDEMIC.

PROVINCE OF ILOILO.

Up to and including the month of August, 1902, both the interest and attendance in the public schools of this division were steadily increasing. The support given by the municipalities to the public schools was good, from their standpoint—very good. The people desired to have their children in school, but not infrequently the desire was not strong enough to cause the parent to sacrifice somewhat in order that it might be realized. Good will toward the American teacher was everywhere expressed in most cordial terms. And those towns which did not have American teachers sent in, and are still sending, petitions asking that they be given American teachers to take charge of their schools.

About the first of September cholera appeared in Iloilo Province, and the schools were soon all closed by order of the provincial board of health. The epidemic continued with varying severity through the province for about two months. During all of this time the schools were almost without exception closed.

It soon became apparent that malicious stories of the poisoning of wells were causing the ignorant mass of the people, and not a few of those who styled themselves "ilustrados," to look with suspicion upon the Americans. And in many cases all confidence in us was, for the time being, lost.

This unfortunate circumstance made it doubly hard for the American teacher to be of any assistance to the people in their distress. For, having no confidence in the Americans, they feared to accept the ministrations of the teachers lest they make use of the opportunity to poison them. In only four instances, however, was the American teacher openly charged with having poisoned wells or food. The situation in which we all found ourselves could not well have been more delicate. In every case where it was known that the American teacher was regarded with suspicion I directed him to come to Iloilo, believing that his absence from his town while cholera was continuing to spread would do more than any amount of argument could to disabuse the minds of the people of the idea that the American teacher was in any way the cause of the disease that was carrying off

so many. The result fully justified this action on my part, for in every town where the American had been under suspicion during that trying time he was welcomed back upon his return, with the full confidence of the people. In a few cases, where the confidence in the teacher was too strong to be broken by absurd rumors and the common sense of the people too sturdy to weaken them, the teacher remained at his post and gave the people all the assistance in his power.

In the few towns from which I have been able to secure fairly complete data of the mortality among the school children during that time it was found to amount to a little more than 15 per cent. I believe that this percentage is below, rather than above, the average for all the towns of the province.

From these figures it will be seen that it took us all the remainder of the school year to get our schools back to the point they had reached before cholera began its work in the province. The American teachers succeeded in not only getting back practically all of the old students, but also enough new ones to take the places made vacant by the death of 15 per cent of the former pupils. The native schools were still about 25 per cent short of their August numbers when schools closed.

I feel that the American teachers are to be congratulated upon their record. For they returned to a people whom malicious rumors had made distrustful and suspicious; to a people whose homes had been shattered by death; to a people hungry and despairing; whose fields were untilled and whose carabaos were either dead or stolen; whose courage had been broken; whose brightest outlook was sadder indeed. Such was the condition of the people to whom the American teacher returned and in whom he began to instill a new courage. That he succeeded in overcoming their distrust, in gaining anew their confidence and support, and in refilling his schools speaks eloquently for him of good work done. How fully he succeeded in regaining their confidence is evidenced by the unprecedented number that came to the capital of the province for the month's work in the Summer Normal and also by the very large increase in the enrollment at the beginning of the new school year.

PROVINCE OF RIZAL.

From April to September, 1902, it was necessary for every municipality to provide money to fight cholera. Nearly all the crops were devastated and wholly destroyed. The industrial taxes in the towns of this province are small, with few exceptions. The towns' treasuries became depleted. The land taxes were not yet paid. As a consequence of these conditions of the town treasuries the schools fared very poorly, so far as financial support was concerned. In many cases debts had been incurred by the municipalities and awaited the payment of the land taxes for liquidation. In some cases it was absolutely necessary for the towns to use some of their school funds accruing from the land tax for its cholera funds, as health regulations demanded certain expenses to avoid the recurrence of cholera. Also in some cases towns borrowed school money to fight grasshoppers, having since been so poor that they can not repay. The grasshopper pest impoverished the people in food and money. Parents could not send their children to school under these trying conditions even if they had been fully cognizant of the great benefits of the public schools.

GENERAL PROGRESS MADE—SCHOOL CONDITIONS.

PROVINCE OF PANGASINAN.

There can be no doubt that the public schools are winning their way. Two years ago the Filipino people did not believe that the educational movement in these Islands would be permanent. Time and again this statement was made by representative natives, but the belief no longer prevails. The natives everywhere in this section are coming to understand that the Bureau of Education is a fixture in the system of Civil Government, and that it is maintained solely for the good of the Filipino people. With

this realization has come, in nearly every pueblo, a complete coöperation with the American teacher. There are instances, to be sure, in which this is not true; instances in which the presidente, who by virtue of his position can in large measure make or mar the school, has not diligently exerted himself in its behalf, but I know of no case in which this spirit has been an aggressive one. It invariably shows itself in the form of indifference (not unmixed with colossal laziness) to progress of any kind which demands a certain amount of energy.

PROVINCE OF LA UNION.

It is difficult to judge of the results that the Bureau of Education has accomplished since it took up its work in the Islands. In judging of the work of any division we must take into consideration the work done by the Manila Normal School in training teachers who have returned to their homes and rendered valuable service in teaching not only English but the elementary branches, and in presenting their work according to modern methods. In no province more than this has the opportunity been afforded to the American teacher to see what modern training will do for the Filipinos. The result has been very encouraging to us all, and we entertain high hopes for the future of the school system as the Filipinos gradually take the places now held by the American teachers. To judge of the work accomplished locally we have only to compare present conditions with the conditions as we found them on our arrival some two years ago. Then but few people could speak English; now, in each town where an American teacher has been for some time, you will find many children and grown-up people who understand and speak considerable English, and the children have a good understanding of the elementary subjects. The interest now felt in education is manifested in many ways: Large enrollment and regular attendance; flourishing night schools in which many older men have learned English; the desire to retain the American teachers and to render them every aid possible in building new school houses and in repairing old ones; in passing local compulsory education laws; parents' coming to school to report the sickness of their children—all these things tend to show the interest parents and pupils take in education. The number of people speaking English as compared with those speaking Spanish would be in itself a standard to judge of the success of the work accomplished. To go further and judge of the advancement made in the common branches by those taught in the American schools for a short time as compared with the knowledge of those educated during Spanish times is, from our standpoint, most favorable to the American-taught pupil. Now each town has a class of from 20 to 30 pupils well started in the common branches, eager and willing to learn; all that is needed is the American teacher to help them along. The work done by the Filipino teachers is most gratifying; they have dropped the old method of teaching and have adopted our methods with splendid results.

PROVINCE OF TARLAC.

It has been observed that the schools have flourished best and received the most support in towns where the officials, especially the presidentes, are men of ability and regulate well the municipal affairs, whereas the schools suffer in the poorly governed towns. Some officials have been removed from office on account of inefficiency or charged with some criminal offense of which they had been found guilty.

The Filipino *padres* have not been unfriendly toward the American teachers, although they have maintained an attitude of indifference toward the schools. In some towns the *padres* have addressed the pupils on special occasions. The *padre* of Tarlac contributed to the fund raised for the construction of an addition to the new building. Another favorable evidence is that there has been less demand for the closing of schools for the observance of customary holidays. This has been happily adjusted in some towns by excusing from class all pupils who desired to attend mass, after which they return to their classes.

PROVINCE OF PARAGUA.

What is needed is more American teachers for a few years, and then there will be enough native teachers for the work to be done, who will come from the boys and girls now learning English.

In the barrio schools we have several teachers employed who do not know any English at all, but they teach the children to read and write their native dialect. The only book they have is a little book called "Doctrina Cristiana." In fact, this is the only book printed in the native dialect. The teachers of these schools are for the most part very ignorant and only receive from two to five pesos per month. It is positively pathetic to witness this fruitless effort to acquire knowledge. It is certainly encouraging to note the difference between these children who have no opportunity and the children who have been under the careful instruction of an American teacher for two years. I am forced to the irresistible conclusion that either American teachers or native teachers educated in America must be provided.

The Province of Paragua is a ripe field for the American teacher, for all the natives want teachers. There is but little hope of many people over 20 years old ever speaking English well, but there is great hope that all the children will be able to learn English well. The field is open and the people desire to learn English, and already more children speak English than there are grown people who speak Spanish. This province, and especially Cuyo, with proper concentration, can be made an English-speaking people.

Statistics, Bureau of Education.

[Supervisory force of the Bureau of Education: DAVID P. BARROWS, General Superintendent; FRANK R. WHITE, Assistant to the General Superintendent.]

No.	Division.	Superintendent.	Headquarters.
1	Manila	O'Reilly, G. A.	Manila.
2	Albay and Sorsogon	Fisher, E. E.	Albay.
3	Camarines	Freer, W. B.	Nueva Caceres.
4	Batangas	Buck, H. H.	Batangas.
5	Bohol	Gibbins, L. T.	Tagbilaran.
6	Bulacan	Turner, E. G.	Baliuag.
7	Cagayan and Isabela	Bard, H. E.	Tuguegarao
8	Capiz	Coddington, E. A.	Capiz.
9	Cavite	Campbell, S. A.	Cavite.
10	Cebu	MacClintock, Samuel	Cebu.
11	Ilocos Norte	Kniseley, J. M.	Laoag.
12	Ilocos Sur and Abra	Rodwell, W. W.	Vigan.
13	Iloilo and Antique	Brink, G. N.	Vigan.
14	Laguna	Lutz, W. E.	Santa Cruz.
15	La Union	Magee, C. H.	San Fernando.
16	Leyte	Sherman, B. B.	Tacloban.
17	Masbate	Lamson, H. G.	Masbate.
18	Samar	Townsend, H. S.	Catbalogan.
19	Misamis	Van Schaick, G.	Cagayan.
20	Nueva Ecija	Thomson, T. W.	San Isidro.
21	Nueva Vizcaya	Coleman, T. W.	Bayombong.
22	Negros Occidental	Putnam, Chas. E.	Bacolod.
23	Negros Oriental	Lee, S. T.	Dumaguete.
24	Pampanga and Bataan	Preuit, W. A.	San Fernando.
25	Pangasinan		Lingayen.
26	Rizal	Bleasdale, B. G.	Pasig.
27	Romblon	Walk, G. E.	Romblon.
28	Surigao	Briggs, G. N.	Surigao.
29	Tarlac	Reimold, O. S.	Tarlac.
30	Tayabas	Muerman, J. C.	Lucena.
31	Zambales	Atkin, Otho	Iba.
32	Mindoro	Offley, R. S., governor	Calapan.
33	Benguet	Pack, W. F., governor	Baguio.
34	Lepanto-Bontoc	Dinwiddie, W., governor	Cervantes.
35	Paragua	Miller, E. Y., lieutenant gov- ernor.	Cuyo.
	Moro Province	Saleeby, N. M.	Zamboanga.
	The Philippine Nautical School.	Colbert, W. J., principal	Manila.
	The Philippine Normal School.	Beattie, G. W., principal	Do.
	The Philippine School of Arts and Trades.	Gleason, R. P., principal	Do.

Secondary schools.

Division and location.	Principal.	Enroll-ment.	Attend-ance.
Albay and Sorsogon:			
Guinobatan, Albay	C. J. Pierson	54	47
Sorsogon, Sorsogon	S. W. Ford	37	34
Camarines, Nueva Caceres	F. L. Crone	157	122
Batangas:			
Batangas	H. C. Theobald	123	116
Bauan	E. H. Hammond	122	115
Taal	A. N. Small	118	84
Balayan	R. Trace	121	111
Lipa	S. S. Milligan	101	94
Tanauan	W. A. Pierce	77	76
Bohol, Tagbilaran	M. J. Patterson	200	137
Bulacan, Baliuag	J. A. Fairchild	302	269
Capiz, Capiz	M. H. Fee	63	57
Cavite, Cavite	S. K. Mitchell	168	153
Cebu, Cebu	S. MacClintock	290	193
Ilocos Norte, Laoag	W. Edmonds	202	193
Ilocos Sur and Abra:			
Vigan, Ilocos Sur	Chas. K. Bliss	431	354
Bangued, Abra	P. S. O'Reilly	140	127
Iloilo and Antique:			
Iloilo, Iloilo	C. H. Covell	713	498
San Jose, Antique	C. R. Cameron	47	43
Laguna, Santa Cruz	R. H. Neely	149	123
Union, San Fernando	J. W. Johnson	179	165
Masbate, Masbate	B. F. Whell	37	32
Nueva Ecija, San Isidro	C. D. Schell	161	145
Occidental Negros, Bacolod	Ray Howell	185	177
Oriental Negros, Dumaguete	F. J. Bailey	101	65
Pampanga and Bataan:			
San Fernando, Pampanga	J. L. McMillan	140	130
Balanga, Bataan	C. W. Guerin	80	65
Pangasinan, Lingayen	T. D. Anglemeyer	284	278
Rizal, Pasig	Stewart Laughlin	135	118
Romblon, Romblon	J. H. Jenkins	58	52
Surigao, Surigao	C. M. Moore	96	51
Tarlac, Tarlac	O. S. Reimold	163	134
Tayabas:			
Lucena	H. H. Balch	110	90
Boac	E. E. Baker	98	76
Zambales, Iba	C. Derbyshire	71	62
Total		5,513	4,586

Statement of enrollment and attendance of night schools for September, 1903.

No.	Division.	Number of schools.	Enroll-ment.	Average attend-ance.
1	Manila:			
	City schools	23	3,510	2,840
	Trade schools	6	124	107
2	Albay and Sorsogon	6	248	187
3	Ambos Camarines	3	85	64
4	Batangas	9	399	302
5	Bohol	5	214	145
6	Bulacan	15	488	404
7	Cagayan and Isabela	5	160	107
8	Capiz	2	177	99
9	Cavite	7	376	272
10	Cebu	7	293	191
11	Ilocos Norte	4	170	122
12	Ilocos Sur and Abra	11	423	275
13	Iloilo and Antique	15	725	473
14	La Laguna	13	403	317
15	La Union	4	132	106
16	Leyte	6	188	160
17	Masbate	6	176	141
18	Samar	4	167	110
19	Misamis	2	68	54
20	Nueva Ecija	5	144	95
21	Nueva Vizcaya	1	50	43
22	Occidental Negros	10	316	226
23	Oriental Negros	3	112	65
24	Pampanga and Bataan	10	317	246
25	Pangasinan	13	411	299
26	Rizal	8	440	355
27	Romblon	5	115	93
28	Surigao	2	71	46
29	Tarlac	6	315	211
30	Tayabas	7	189	142
31	Zambales	7	355	259
34	Lepanto-Bontoc	1	44	19
	Moro Province	1	24	20
	Total	227	11,429	8,595

Statement of public day schools for September, 1903.

Divisions.	Christian population as given by last census.	Number of towns last census.	Number of towns with American teachers.	Number of American teachers.	Number of native teachers.	In towns under supervision of American teachers.		In towns not under supervision of American teachers.		Total.		Estimate of Christian school population.	Percent- age of school population now in public schools.
						Enroll- ment.	Attend- ance.	Enroll- ment.	Attend- ance.	Enroll- ment.	Attend- ance.		
Manila	220,553	14	13	65	151	3,982	3,541	585	517	4,567	4,059	44,111	10
Albay and Sorsogon	355,921	42	18	26	45	2,423	1,885	280	180	2,703	2,065	71,184	24
Camarines	234,090	39	11	23	74	3,975	2,570	3,701	2,068	7,676	4,638	46,818	16
Batangas	258,208	22	12	34	121	7,786	6,255	1,350	1,200	9,136	7,455	51,642	18
Bohol	268,128	35	5	13	62	2,666	2,150	9,712	4,929	12,378	7,079	53,626	23
Bulacan	222,551	25	18	26	86	6,937	5,426	1,941	1,478	8,878	6,904	44,510	20
Cagayan and Isabela	212,475	41	14	21	51	4,174	3,119	1,082	764	5,256	3,883	42,495	12
Capiz	223,560	35	6	12	14	1,307	939	239	141	1,546	1,080	44,712	3
Cavite	134,287	23	14	22	64	3,424	2,831	768	607	4,192	3,438	26,857	16
Cebu	655,469	41	10	30	177	3,845	2,493	1,840	1,195	5,685	3,688	131,094	4
Ilocos Norte	177,149	15	8	14	65	4,769	3,393	1,096	739	5,863	4,032	35,430	17
Ilocos Sur and Abra	209,618	36	15	29	161	9,951	6,981	5,432	4,060	15,383	11,041	41,924	36
Iloilo and Antique	537,178	71	20	53	188	6,937	4,996	4,004	2,633	10,941	7,629	107,436	10
La Laguna	148,840	23	14	25	63	3,080	2,391	621	444	3,701	2,835	29,768	13
La Union	127,966	14	9	16	74	3,259	2,563	875	574	4,134	3,137	25,593	16
Leyte and Samar	652,463	94	13	24	80	3,378	2,706	4,500	3,031	7,878	5,737	130,493	6
Masbate	44,045	12	5	10	15	952	746			952	746	8,809	11
Misamis	138,327	25	5	8	55	658	481			658	481	27,665	2
Nueva Ecija	132,267	23	7	13	22	1,412	1,002	1,173	841	2,585	1,843	26,453	10
Nueva Vizcaya	16,073	6	2	3	32	993	906	1,488	1,260	2,481	2,166	3,215	77
Occidental Negros	305,743	34	16	25	116	7,627	5,556	1,744	1,122	9,371	6,678	61,149	15
Oriental Negros	186,397	24	15	22	119	4,447	3,622	284	212	5,131	3,834	37,279	14
Pampanga and Bataan	266,177	35	20	32	99	6,942	5,051	1,088	781	8,030	5,832	53,235	15
Pangasinan	397,632	37	14	27	122	6,973	5,456	1,764	1,212	8,737	6,668	79,526	11
Rizal	146,169	32	13	23	60	3,874	2,919	871	674	4,745	3,593	29,234	11
Romblon	52,858	11	6	8	29	1,798	1,013	898	425	2,696	1,438	10,572	25
Surigao	95,714	34	10	110	49	1,320	1,041	7,575	4,825	8,895	5,866	19,143	46
Tarlac	135,397	17	8	15	49	3,020	2,366	946	722	3,966	3,088	27,079	15
Tayabas	203,411	31	10	16	84	5,829	4,365	1,205	814	7,034	5,179	40,682	17
Zambales	100,955	25	7	11	60	3,753	2,918	1,298	825	5,051	3,743	20,191	25
Mindoro	35,294	6	2	2	17	617	493	445	300	1,062	793	7,059	15
Paragua	28,960	12	3	5	27	47	27	250	180	297	207	5,792	5
Insular Normal School				19	1	352	310			352	310		
Insular Trade School				5	2	130	98			130	98		
Insular Nautical School				4	1	112	108			112	108		
Total	6,967,011	934	338	691	2,496	123,147	92,617	59,055	38,754	182,202	131,371	1,384,776	13

NOTE.—Moro Province, Benguet, and Lepanto-Bontoc are not here included: enrollment, 2,000; attendance, 1,500.

BUREAU OF AGRICULTURE.

Prof. F. LAMSON-Scribner, Chief of Bureau.

Fibers of the Philippines.

THE CULTIVATION OF MAGUEY IN THE PHILIPPINE ISLANDS.

[By H. T. Edwards, fiber expert for the Insular Bureau of Agriculture.]

LETTER OF TRANSMITTAL.

SIR: * * * There is reason to believe that the production of maguey can be made one of the important agricultural industries of the Islands. It is already widely distributed, having been reported to this Bureau from 22 different provinces. There are large areas of land, unsuited to almost any other crop, which would be in every way satisfactory for maguey. There is a good demand for the fiber, the current quotations for sisal in the New York markets being but 2 cents less per pound than for abacá. For the development of this industry in the Philippine Islands it is deemed important that every effort should be made to improve the conditions of plantation management, to encourage the introduction of fiber-extracting machinery, and to disseminate as widely as possible whatever information is available relative both to the cultivation of the plant and to the extraction and treatment of the fiber.

Very respectfully,

H. T. EDWARDS, Fiber Expert.

Prof. F. LAMSON-Scribner,

Chief Insular Bureau of Agriculture.

INTRODUCTION.

Maguey and sisal are the common names of two closely allied species of the genus *Agave*. There has been some confusion in the use of the name maguey, it being sometimes applied to all of the species of *Agave*. Strictly speaking, however, the maguey of Mexico and Central America is the plant of *Agave americana*,

which produces the fiber known as "pita," while sisal is the fiber produced by the plant henequin, *Agave rigida sisalana*. In the Philippine Islands both the plant and the fiber are generally known as maguey and have been classified as belonging to *Agave americana*. It is probable, however, that the greater part of the so-called maguey fiber of the Philippines is produced by the species *Agave rigida sisalana* and therefore should more properly be termed "sisal." The fiber known as ixtile, or Tampico fiber, is produced by *Agave heteracantha*.

The Agaves are natives of Central America, but are now widely distributed throughout the world. They are found in Mexico, Central America, the West Indies, southern Europe, India, and other countries. The plants are often used for ornamental purposes, the juice has medicinal properties, and when distilled has a wide use as an intoxicating beverage known as pulque or mescal, the pith furnishes a good substitute for soap, and the fibers have a great variety of uses, viz, for cordage, fishing lines, nets, hammocks, saddle blankets, brushes, laces, and both fine and coarse fabrics.

HISTORY AND DISTRIBUTION IN THE PHILIPPINE ISLANDS.

Maguey was first introduced into the Philippine Islands from Mexico or Central America by the Spaniards, but at what time, or by whom, we are unable to determine. The plant has long been raised in a small way, but it is only in very recent years, since there has been an increased demand for the fiber, that its cultivation has become an important industry. From the Provinces of Ilocos Norte, Ilocos Sur, and Union maguey fiber is now exported in considerable quantities. In many other provinces we find the maguey plant and in numerous instances the fiber is extracted for local use. The production of abacá has been such an important industry in the Islands and its cultivation has received so much attention that the good qualities and true value of maguey have been to some extent overlooked.

In the different provinces we note a variation of the spelling

of the word "maguey," also several distinct ways of extracting the fiber and a number of different uses for the same. Although this fiber is produced in commercial quantities in but a few provinces, it is otherwise widely distributed through the Islands. The cultivation and utilization of maguey has been reported to this Bureau from twenty-two different provinces, as follows: Abra, Albay, Antique, Bataan, Batangas, Benguet, Bohol, Bulacan, Camarines, Capiz, Ilocos Norte, Ilocos Sur, Iloilo, Masbate, Nueva Ecija, Nueva Viscaya, Pampanga, Pangasinan, Romblon, Tayabas, Union, and Zambales. In different localities the fiber is separated by different methods and is used for different purposes, as is shown by the following data:

Abra.—Maguey grows abundantly but is not largely utilized, owing to the difficulty of separating the fiber without the use of sea water for retting. Experiments have been made in sending the maguey leaves from this province to the tide waters of Ilocos Sur. The fiber thus produced was in all respects equal to that obtained from the plants grown in Ilocos. Maguey also has a local use peculiar to this province. The leaves are split lengthwise into a number of parts. These parts are dried in the sun for two or three hours and are then used as lashings for tying bales of tobacco. This material, however, is reported to be lacking in strength and not of great value.

Albay (Magui and maguei).—Grown in small quantities for local use only.

ANTIQUE (Magui).—In Antique maguey fiber is extracted by the same process as that used for piña (pineapple). The leaf is placed on a smooth board and is then scraped with a piece of earthenware, which removes the pulp. The fibers are then taken out by hand, washed and dried. This method produces a very fine quality of fiber which is used in the manufacture of delicate fabrics.

Bataan.—Grown in small quantities for local use only.

Batangas.—Several thousand plants have recently been sent to Batangas from Ilocos Sur. Maguey has previously been grown in this province only in small quantities. Two methods of fiber extraction are practiced in Batangas: (1) The leaf is treated by the stripping process employed for abaca; (2) the leaf is split in two parts, one end being fastened to a stick or pole. The free end is then caught between a piece of split bamboo which is manipulated with both hands of the operator over the entire length of the leaf until the pulp is entirely removed. Both of these methods are more laborious than the retting process, but they produce a better quality of fiber.

Benguet.—Maguey is grown in the pueblo of Kapangan. It has only a local use.

Bohol (Magay).—Found principally in the pueblos of Loon, Panglao, and Maribojoc. The fiber has a local use both for cordage and for fabrics.

Bulacan (Mague).—Grown only in small quantities for local use.

Camarines.—Grown largely in the pueblo of Basao. The fiber is separated by the piña process and is used in making fine and delicate fabrics. There is a great deal of land in Camarines well suited to maguey and its cultivation might well become an important industry.

Capiz.—Grown in small quantities for local use.

Ilocos Norte.—Ilocos Sur and Ilocos Norte are the two important maguey-producing provinces of the Islands. Nearly all of the fiber which is exported comes from these two provinces. Maguey is found in all parts of Ilocos. In the pueblo of Batac it is estimated that one-fourth of the population (18,000) is engaged in raising maguey. In Paoy it is estimated that there are 300 hectares of maguey, producing an annual output of fiber valued at \$7,500. There are several important plantations in the pueblo of Nagpartian and in the barrio of Davila. Owing to the method of planting maguey in small and widely scattered plots it is difficult to make any very definite

estimate of the area under cultivation. The only estimate received by this Bureau states that 500 to 600 hectares are under cultivation, producing an annual yield of about 2,500 piculs of fiber. It is the general custom on the different plantations to use the rich lowlands for rice and corn, reserving for maguey sandy knolls, fence corners, and any other so-called "waste land," it being considered that the only requirement for maguey is sufficient room in which to grow. There has been a great increase in the area devoted to maguey in this province during the past few years owing to the higher prices paid for the fiber. Maguey fiber is used locally in Ilocos Norte both for cordage and for fabrics and is exported in large quantities.

Ilocos Sur.—This province produces by far the largest amount of maguey fiber of any province in the Islands. The general conditions are the same as in Ilocos Norte. Planting is largely done on waste lands, the fiber is extracted by the retting process, and the fiber is exported to Manila.

Iloilo (Magui).—Grown in small quantities near the coast. Has only a local use.

Masbate (Magui).—Grown in small quantities. The fiber is extracted by the piña method and has only a local use.

Nueva Ecija, Nueva Viscaya, and Pampanga.—Grown in small quantities for local use.

Pangasinan (Amaguey or pita).—A small amount of fiber is exported from this province and has a limited local use for cordage and fabrics.

Romblon (Pita).—Grows near the seacoast in small quantities.

Tayabas.—Grown in small quantities and used for fabrics. Is considered equal to piña.

Union.—Is exported in small quantities and has a considerable local use principally for cordage. The fiber is extracted by the water-retting process.

Zambales (Amaguey).—Conditions are similar to those of Union. Small quantities of the fiber are exported and water retting is practiced.

The above data is sufficient to show that, while maguey is not at the present time an important crop in many provinces, it is at the same time widely known and distributed. This fact will greatly facilitate its more general introduction.

THE MAGUEY PLANT AND FIBER.

The maguey, or "century plant," is largely used in the United States for ornamental purposes. In many parts of the Philippine Islands it may be seen growing by the roadside, in gardens, and in neglected fence corners.

The plant consists of a short, heavy stem which bears an aloe-like cluster, or rosette, of from 20 to 40 thick, fleshy leaves. These leaves are from 3 to 7 feet long and from 2 to 4 inches wide. They are light green in color, are covered with a whitish powdery substance, bear sharp lateral teeth and a terminal spine. The leaf is composed of pulpy material interspersed with vascular bundles which furnish the fiber. When the plant matures, which is in from seven to fifteen years, a central stalk, or "pole," grows to a height of from 15 to 20 feet. This stalk first bears flowers and afterwards a large number of small bulbs which, when mature, fall to the ground. After flowering once the plant dies.

The fiber of the maguey, belonging to the class known as structural fibers, is produced by the leaves. It is obtained by separating the pulpy portion of the leaf from the fine filaments, or fibro-vascular bundles, which run through this pulp. The fiber if carefully separated and dried is quite white and brilliant. It is 4 or 5 feet long, is fine and soft, and is more wavy or fluffy than is Manila hemp. Another marked quality is its great elasticity, which gives it great value when used for cordage that is liable to be subjected to any sudden strain. "Its main faults are the stiffness, shortness, and thinness of wall of the individual fibers, and a liability to rot." (Spon.) Its strength as compared with certain other fibers is shown by the following

data: "In a trial of strength near Calcutta the tests were made with ropes 1 fathom long and 3 inches in circumference, with the following results: The Agave or pita broke in a strain of 2,519½ pounds; coir, 2,175 pounds; jute, 2,456½ pounds; and sunn hemp, 2,269½ pounds. In an experiment with Russian hemp and pita the first named broke with 160 pounds weight and the latter with 270 pounds." (Dodge.) These tests are sufficient to show that in the important quality of strength maguey compares favorable with other well-known commercial fibers.

CLIMATE.

Almost any tropical or subtropical climate appears to be favorable for the growth of maguey. Owing to its thick, fleshy leaves it will not suffer during a prolonged drought, while it also flourishes in the humid climate and during the rainy season of the Philippines. It is stated that in a humid climate a longer and more elastic fiber is produced. The only injury which the plant suffers in the Philippine Islands, from climatic conditions, is from the heavy winds which sometimes tear and lacerate the leaves.

SOIL.

The most important feature of the soil suitable for maguey is that it shall be well drained. The plant is very sensitive to water at the roots, and without good drainage will make but a poor growth or will die outright. Maguey will grow well either on a heavy or a light soil and under very adverse conditions, but the impression that it will do well in any soil is a mistaken one. Plantings are sometimes made close to the seashore in dry sand. Under these conditions even maguey can not be expected to thrive. Undulating land or hilly slopes are the most suitable, as in such locations there is usually excellent drainage. On the plantations in the Ilocos provinces the lowlands are used for rice and corn, the small hills, together with any sandy or stony pieces of ground, being reserved for maguey. The planters in these provinces will always say, "only cheap land should be devoted to maguey." While this may be true with the present slow and expensive method of fiber extraction, with the introduction of fiber-extracting machinery it is very probable that much of the land now used for other crops which are considered of greater value might well be planted to maguey. This plant will grow and yield a certain amount of fiber upon almost any soil and with no care. Under more favorable conditions, however, the yield of fiber may be greatly increased.

ESTABLISHING A PLANTATION.

The practical question which faces any prospective planter of maguey is, Where and under what conditions can a maguey plantation be established in the Philippine Islands? Suitable climatic and soil conditions can be found in almost any province in the Islands. If the fiber is to be extracted by water retting the location must be near the mouth of some river, where the tide water can be utilized. This method can not be recommended. It is slow and expensive and requires the use of a great amount of labor. If fiber-extracting machines are to be used the location can be made at any point where there is a sufficient amount of well-drained land, heavy clays and very light sands being avoided if possible. Due consideration should also be given to the facilities of transportation, the amount of available labor, and a good water supply at some central point.

The general methods of plantation management as described in the bulletin entitled "The Cultivation of Sisal in Hawaii" may be advantageously followed in these Islands. Owing to the difficulties and slowness of transportation, the first step to take after having secured the land for the plantation should be to order the suckers for planting. These can usually be bought in sufficient quantities from the maguey planters either of Ilocos Norte or

Ilocos Sur and cost from \$3 to \$6, local currency, per thousand. The plantation should then be mapped out, the land cleared, and the sites selected for buildings and a nursery.

PLANTING.

The maguey produces both seed and suckers, the former, however, only in small quantities. In starting a new plantation seed is seldom or never used. When the maguey plant reaches maturity suckers grow out from the axils of the lower leaves and small bulbs are borne upon the flower stalk or "pole." Either these suckers or the bulbs may be used for the new plantation. If it is possible to secure well-developed suckers, these may be planted at once in the field. When bulbs or pole plants are used they should be first set in the nursery in rows 1 foot apart and 6 inches in the row. In about a year these plants will be ready for transplanting.

The system of planting followed in the Philippines differs materially from that of Mexico and Hawaii. In the latter countries the plants are set from 6 to 8 feet apart, while in these Islands they are usually given but three or four feet. The reason for this close planting is said to be that if given a greater distance the plants will be torn and lacerated during the heavy "baguios," or windstorms. This matter is one to be largely determined by local conditions, the nature of the soil, the climate, and the frequency of heavy winds. In a locality subject to typhoons close planting may be necessary, otherwise the number of plants should not exceed 800 to 1,000 to the acre. The time for planting is during the rainy season, from June to November.

CULTIVATION.

In the nursery the plants should be kept well cultivated. In the field no cultivation is necessary except to keep down the grass and weeds. Owing to the sharp teeth and spines which are borne on the leaves, the use of animals for cultivating soon becomes impossible. When the plants are fully developed even hand cultivation becomes impracticable. Great care should be taken when doing any cultivating not to injure the leaves, as such injury will lower the quality of the fiber.

INSECTS AND DISEASES.

The hardness of the maguey plant with regard to soil and climatic conditions seems to be equally true as regards insect enemies and fungus diseases. The sisal of the Bahamas was at one time attacked by a fungus on the leaves and a mealy bug has been reported as having done some damage. In these Islands, however, the plant does not appear to be troubled either by insects or diseases. It is stated that the only enemy of the maguey in the Philippine Islands is the typhoon.

EXTRACTION OF FIBER.

The first crop of leaves can be cut in about three years from the time of planting. It is customary to harvest once a year during the dry season, from January to May. Each plant should then bear from 15 to 20 leaves. The fiber-extraction process should commence within twenty-four hours after cutting, as otherwise the fiber will be stained at the end. There are several different methods used in the Philippine Islands for the extraction of the fiber:

- (1) The abaca-stripping process.
- (2) The split-bamboo stripping process.
- (3) The piña-scraping process.
- (4) The maceration and retting process.

The methods of extracting by which the fiber is separated from the pulp without the use of water for retting give a product of very superior quality. These methods, however, are slow and laborious and are not in any general use.

The retting process has for its object the dissolution of the

gummy, resinous substance which envelops the filaments. This substance being very adhesive prevents the free separation of the fibers. If the leaf is not sufficiently retted the fibers will still adhere to each other, while if the process is carried too far the product is seriously injured or rendered utterly worthless.

Two distinct methods are in use. In the former the leaves are cut, crushed, or beaten, gathered in bundles, and allowed to ferment. When fermentation has ceased the bundles are placed in water until the pulpy material has further deteriorated. If this process is properly carried out the leaves may be removed from the water after two days of retting. By this process one-third or more of the product is converted into tow. By the latter method after the leaves are cut and the thorns removed they are split in 4 or 5 pieces and made into bundles, these bundles being immediately placed in the water for retting. It is advisable to have the bundles small and of uniform size, also the coarser leaves should be separated from the more tender ones, as the latter ferment more quickly.

A great deal depends upon the nature of the water used for retting. This may be stagnant or running, fresh or salt, warm or cool. A high temperature and saline properties increase the rapidity of the process. Stagnant water has the advantage of being warmer and the disadvantage of easily becoming foul. Salt water is preferable to fresh. The tide waters of the rivers are most generally used.

For the retting process the bundles of leaves are placed one upon another in the water. They should be turned every three or four days, as those on the bottom will ferment more rapidly. Even when the greatest care is used, by the time the coarser part of the leaf is ready to be removed the finer part is over-retted and consequently weakened. This difficulty may be overcome by setting upright sticks in the water, fastening the bundles to them and first retting for three or four days only the coarse part of the leaf. This method is more expensive but will produce a better product. After the seventh day the leaves should be inspected daily. They may be removed in from seven to fourteen days, depending upon the condition of the water.

AFTERTREATMENT OF FIBER.

When the retting process is complete the fiber should be removed from the water and dried in the sun. This drying will ordinarily take from two to three days. Care should be taken that the fiber be not exposed to rain or heavy dews during the process of drying, as these will injure its appearance. After being thoroughly dried a shaking and brushing is necessary to remove whatever extraneous matter may still adhere to the fiber. The finished product is now ready for the baling press. During whatever handling is necessary and in the process of baling great care should be taken that the fiber be kept perfectly dry and that the different strands and hanks do not become tangled and dirty.

YIELD.

Owing to the fact that this Bureau has not as yet done any experimental work with maguey the only available figures as to the yield of fiber per leaf, per plant, and per acre are those furnished by our correspondents. Unfortunately these figures show a remarkable variation, so that only a general estimate can be made. In Ilocos Sur the yield of fiber is estimated at one picul of 137½ pounds for every 6,000 leaves. Plantings made 4 by 4 feet would give approximately 2,700 plants to the acre. With an average yield of 15 leaves to the plant we would have a total yearly yield of 40,500 leaves, producing 6½ piculs or 928 pounds of fiber per acre. The estimated yield of fiber in this province is 4 per cent of the weight of the leaves. This is the same as the sisal of Yucatan and somewhat higher than that of Hawaii. The total amount of maguey fiber exported from the Philippine Islands for the year 1901 was 875 tons. For the first

six months of the year 1902, 867 tons were exported, indicating a considerable increase in the annual production.

VALUE AND USES OF FIBER.

The current prices paid by commercial houses in Manila for maguey fiber are as follows: For the first grade, \$15, local currency, per picul; for the second grade, \$12 per picul; for the third grade, \$9 per picul. It is stated by fiber growers that the average relative amount of the different grades produced by a given amount of fiber is, for 1,000 pounds of fiber: First grade, 920 pounds; second grade, 50 pounds; third grade, 30 pounds.

The fiber is produced both for local use and for export. In the Visayas maguey is extracted by the same method as that used for piña. By this process a very fine and soft fiber is secured which is suitable for use in making delicate handkerchiefs, laces, and cloth. When used for these purposes the young and tender leaves should be selected, as these yield a finer quality of fiber. In northern Luzon, where extraction is by water retting, the fiber is coarser and is more suitable for cordage.

Maguey fiber has a variety of uses in nearly all civilized countries of the world. In the United States principally for binder twine, also for ships' ropes and cables and for small cordage. In Mexico and South America for lines, nets, hammocks, and saddle cloths. In European countries for various classes of cordage.

FIBER-EXTRACTING MACHINERY.

The essential principle of the fiber extracting machine is that the pulpy material of the leaf is scraped from the fiber without any preliminary maceration or fermentation, thus saving all of the expense and labor of the slow retting process. The use of fiber-extracting machines is a question which has received much attention and is a matter of general interest in the Philippine Islands. In the case of abaca no machine has yet been introduced which has met with any considerable degree of success. With maguey, however, several different machines are in general use in Mexico and the West Indies. Descriptions of the simple "raspador" and of the more complicated machine used at Sisal are given in the bulletin on "The cultivation of Sisal in Hawaii." There is no reason why such machinery should not be used in the Philippine Islands. The quantity of fiber produced is amply sufficient to justify its introduction. With suitable climatic and soil conditions it only requires machinery to make the production of maguey an important industry in these Islands. Without such machinery, however, this industry can never become a very profitable one. The competition between different fibers is now such that only those possessing the most desirable qualities and which are produced at a minimum of cost can be expected to hold their place in the commercial world.

PROSPECTS OF THE MAGUEY INDUSTRY IN THE PHILIPPINE ISLANDS.

The general aspects of the maguey industry as it now exists in the Philippine Islands have already been considered. The plant is widely distributed through the Islands. The fiber is extracted in a small way in many provinces and in considerable quantities in northern Luzon.

Maguey fiber has a recognized place as one of the leading commercial fibers of the world. Its production on a large scale is a profitable industry in Mexico and Central America, where the conditions are in no way more favorable than they are here in the Philippines. With the same business-like management of plantations and the use of fiber-extracting machinery the industry is one which should yield reasonable profits and which is worthy of being widely extended in these Islands. The maguey plantation either in this, or in any other, country can never be looked upon as the proverbial "gold mine." It is, however, a safe and a profitable industry, and where abaca will die for want of water

and cotton is destroyed by insect enemies maguëy continues to flourish and yield good returns.

INQUIRIES RELATIVE TO FIBER PLANTS AND FIBERS.

[Reply from Negros Occidental to Circular No. 3.]

1. Name in the order of their importance all the plants of your province or municipality which yield fiber for commercial or local use.

Abacá, *Musa textilis*, the different varieties of which are moro, bisaya, kinisol, salaog, lonó, camarines, tancaao, agutay, kala-ao, pacol, tindoc, umambac, sab-á, cadiznon. Other species are piña, bulac, *Gossypium arboreum*, maguëy, anabó, togabong, dalupang, salagó, siapo, bunang-bunang, burí, bamboos, anilao, bagocon, lapnis, silhigon, tanág, banilad, balitnong, cocoanuts, paathalo, paoa, cagay, salibang-bang, labóg-labóg, sig-id, hagnaya, bulao-bulao, bulacan, tipolo, hanagdong. Besides these, there are others, used in the manufacture of hats, mats, etc., such as ballo, nito, pandan, ticog, lucay, mora, rattan. Many of the plants described are used for making cloths, from the very finest to the very coarsest; others are used only for making rope; still others for making mats, hats, etc.

2. What is the approximate area occupied by these fiber plants, and what is the estimated value of the fiber produced?

These plants cover a considerable area, being found everywhere, most of them growing spontaneously. To speak of none but abacá (the only fiber exported), its annual yield may be stated at \$50,000 Mexican.

3. What is the amount of fiber produced by a single or individual plant, and what is the yield of fiber on any given area?

The greater number of those mentioned are not cultivated, and others, such as tindoc, umambac, sab-á, and cadiznon, are cultivated for their fruits only. The first seven varieties of abacá, which are cultivated for their fibers, yield, per hectare, 14 piculs of white, clear fiber, bringing \$2 to \$4 more than the current price of the best quality of abacá quoted in the Manila markets.

4. Do you think that such fiber plants as cotton, flax, jute, ramie, or other commercial fibers not now grown in your vicinity, might be successfully introduced and cultivated?

I am confident that cotton, flax, jute, ramie, and other plants could be cultivated advantageously. Bulao is one of the varieties of American cotton, and ramie seems to me the same as or very similar to anabó.

5. Do you know of any native fiber plants not now used which might possibly be of some value?

Many of the plants above-mentioned are but little utilized in this locality if, indeed, at all, though their importance is by no means doubtful. To illustrate: There is an immense area of land covered with pacol, which grows spontaneously, but absolutely no use is made of this plant, notwithstanding the fact that the fiber is highly esteemed for the fine cloth that can be woven from it, it being inferior only to that made of abacá. The same is true of tindoc, umambac, sab-á, and cadiznon. We have also anilao, salago, siapo, bagocon, etc., of which no use is made, but from which ropes and strong mats can be made.

6. Give the names of those plants the leaves, bark, or other parts of which are used for making hats, mats, or other articles of value. Mention the part used.

Hats are made of the stems of nitó, and also from bamboo, ticog, rattan, etc.; mats and hats are also made from the leaves of burí, ballo, pandan, mora, etc., and cloth from abacá.

7. Do any varieties of rattan, or plants used for similar purposes, grow in your vicinity? If so, mention the degrees of abundance and the names and uses of the different kinds.

Several varieties of rattan grow upon the mountain slopes, such as mangnao, palasan, and pansilanon, which are of the best quality; then come pudlos, bugting, balagacay, tomaron; and, lastly,

calapé, taguití, tamalola, panlitocan, talonton, lontoc, halamham, and others, which are not so strong. Unless the anarchical system of cultivation hitherto prevailing be remedied we will without doubt be compelled very soon to import from other localities.

8. If fibers, or grades of fibers, are produced in your district which have distinct names please mention them along with the names of the plants from which they were taken.

Sá-sá is a fiber produced by the burí palms, bonot from the shell of the cocoanut, suedap from bamboo or pacá, banhot from the bark of anilao, anabó, bagocon, salagó, siapo, etc.

9. Please give the names and addresses of fiber-plant growers and those otherwise interested in fiber plants and their products.

The planters are Messrs. Paulino Torres, Remigio Salas, José Sarmiento, Agapito Puerto, Angel Linco, Justo Abendan, Valentin Ciridon, Teofilo Ciridon, Patricio Revillo, Ignacio Berbar, Bernardino Crabejo, and others. Those interested in these plants are Messrs. Rafael Ramos, Pedro Vazquez, of Jimamaylan, in this province; Montano Virto, of La Carlota; Timoteo Ungson, of Talisay; Marciano Araneta and Emiliano Trinidad, of Bago.

Note: All information relative to the soil and cultivation of fiber plants, methods employed in extracting the fiber, the possibility of manufacturing paper from the native material, and, in fact, any notes relative to the fiber industry of the Archipelago, are greatly desired and will be duly appreciated when furnished.

The land on which the plants referred to grow is situated on the western slope of Mount Canlaon, at an elevation of from 100 to 1,500 meters. It is very rich in humus, and the numerous rivulets surrounding it afford sufficient moisture. At some points, at certain distances, large stony tracts are met with which are left uncultivated or, at most, plantings are intercalated among them. It is also volcanic, and in past years it was noted that the lava from the mountain covered the slopes to a depth of three inches. Rains are frequent and the season commences much earlier and terminates much later. Therefore, I believe it to be the most suitable soil for this class of cultivation.

Abacá cultivation being the most important in this locality, I will touch lightly upon the common qualities of the varieties of this plant, as known by the planters.

Moro.—Stalk cylindrical, dark, coarse, 15 to 18 feet long; leaves dark green, glossy, coriaceous, wide and long; flower and fruit small, with seeds; thread very consistent, fibers coarse, strong, abundant, white, brilliant; manipulation very resistant; yield very good.

Bisaya.—Stalk cylindrical, white, coarse, 15 to 18 feet long; leaves dark green, glossy, extended, wide, long; flower and fruit large, with round black seeds when perfectly matured; thread very strong, fibers coarse, strong, white, brilliant; manipulation slightly resistant; yield abundant.

Kinisol.—Stalk dark, conical, coarse, long; leaves dark green, glossy, extended, wide, long; flower and fruit large, with seeds; thread firm; fibers coarse, white, spicate; manipulation easy; yield good.

Salaog.—Stalk cylindrical, yellowish, slightly coarse, 9 to 12 feet long; leaves yellowish green, coriaceous, narrow, short; flower and fruit small, with seeds; thread firm, with white and coarse fibers; manipulation easy; yield fair.

Lono.—Stalk medium dark, cylindrical, with red stripes on the border of the hood, coarse, 15 to 18 feet long; leaves dark green, glossy, extended, wide, long; flower and fruit middling with seeds; thread firm, fibers white, fine, glossy; manipulation easy; yield good.

Camarines.—Stalk cylindrical, slightly dark, coarse, 20 feet long; leaves dark green, glossy, extended, wide, long; flower and fruit dark, with seeds; thread very resistant, fibers coarse, strong, white, brilliant; manipulation easy, yield very good.

Tanca-ao.—Stalk cylindrical, dark, coarse, 15 to 18 feet long;

leaves dark green, glossy, extended, narrow, short; flower and fruit small, with seeds; thread firm, of many fibers which are coarse, white, and glossy; manipulation difficult; yield good.

These are the varieties of abacá cultivated in this locality. One thousand plants of abacá are set out to the hectare, the system being as follows:

After a suitable spot combining all the necessary favorable conditions has been selected the trees are felled, thus making a clearing, this operation costing all the way from \$15 to \$25, Mexican. Some of the trees are allowed to remain standing, however, at certain distances, to serve as protection to the abacá. The serviceable trunks are laid aside and the rest burned. This last operation is performed during the closing days of the dry period, with the object of obtaining a crop of rice and corn on the same ground—the rice or corn being planted in holes made in the ground with sticks or poles. When these crops reach a height of three or four inches pits are dug in rows, in which the young abacá plants are placed approximately three meters apart, after which they are well covered. During the first year no cultivation is necessary other than that done in the planting of the rice or corn. Bananas are also planted at certain distances in order to afford shade to the abacá plants. Bananas yield earlier than does the abacá and the sale of the fruit helps to defray the expenses of the young plantation.

At the expiration of six months the corn and rice can be harvested, as early varieties are always selected for planting. Bananas can also be harvested at this time. The stubble is then cleaned away and sweet potatoes planted. It has been noted that this new planting is beneficial to the growth of abacá. The earth is cleared of all injurious weeds, and, at the expiration of five months, the sweet potatoes are harvested, the holes left in the ground by the removal of the tubers being utilized for the abacá plantings. The ground is cleared of weeds and the dry leaves of the abacá are removed, which operation is repeated up to the time of the complete development of the plant. The harvest is then commenced but cutting the stalks that have matured as close to the ground as possible—even level with the surface—in order to enable the remaining shoots to germinate beneath the surface of the ground. The plant is known to be mature when all of the peduncles are joined most evenly on the upper side. Unless the stalks that have been cut are removed they will sprout four or five inches below the joining of the peduncles. The next step is to remove the fibrous part, which is found in the outer covering of the branch (stalk), or, in other words, the convex part of the herbaceous sheath. This is done by means of a bone punch, which is inserted underneath the sheath, removing it with one stroke. The sheaths thus removed are piled together and transported to the sheds in which is constructed the machinery for stripping. The pulpy portions are left upon the ground, in order to be used as fertilizers.

The machinery, as will be seen later, is very imperfect, causing much waste of fiber as well as requiring great strength on the part of the operator. It consists of a strong iron knife 3 inches wide by 5 long and one-fourth of an inch thick, having a dull, serrated edge, and a handle 18 inches long; it is operated as a lever upon a wooden pillow, which is quite smooth and adapted to the edge of the knife. This pillow rests upon a wooden frame while the knife is suspended by a piece of flexible wood, which serves as a spring to regulate the pressure. Underneath is a pedal, by means of which the knife is raised and lowered. Such is, roughly speaking, the machine used. It is manipulated by treading upon the pedal, thus causing the knife to be raised as the abacá strip is placed underneath. The pedal is then released and the knife drops. The abacá strip is then drawn between the knife and the pillow, and in this way the fibers are extracted. This operation is repeated, successively, until a hank (bucá) has been collected, when, with a strand, it is tied twice around and dried. This hank contains a short pound.

For the manufacture of paper we can utilize the waste resulting from the extraction of the fiber of abacá, the stalks of paol, the waste stalks of bananas, or the leaves of the tigbao, which occupies an extensive area and is on account of its vigorous growth, practically speaking, inexhaustible. The many springs of clear water on the large estates would facilitate the establishment of this industry—to become, perhaps, the most important in these Islands.

Nature granted to these Islands the exclusive privilege of abacá-fiber production, and from this industry they should derive great benefits. Confirmation of this is the fact that foreign ports permit the entry of abacá free of duty, and the subject is well worth detailed study by advocates of human progress. I will make a few remarks to the Bureau of Agriculture of these Islands on my observations of these plants and the industry. I have already said that most of the plants described in my first reply grow spontaneously, and the immense value of their fibers is almost inestimable. Therefore, I believe that, with the interest the Bureau is taking in this industry, the cultivation of said plants would undoubtedly increase if laws were promulgated preventing the destruction of same, and if the quality were improved. In order to extend their cultivation it is very necessary to indicate the markets where they may be sold and the price of each variety of fiber. If there are other varieties in other islands of this Archipelago more productive than abacá it would be desirable to aid the planters in this island in procuring seeds or suckers of such varieties; to introduce in the towns where this plant exists the most improved machinery for fiber extraction, either as samples or for sale or rental. It would be desirable, also, to introduce into our towns the most improved machinery for weaving, in order to induce planters to produce the largest quantity; also machinery for rope making, etc.

The method of removing the fibers of the other species (as, for example, piña) is to place the leaf upon a smooth table and scrape the pulp with a piece of porcelain or a stone (the edge of a broken plate would answer the purpose), beginning with the extreme end of the under surface of the leaf. The resulting fiber is very coarse and is called *bastos*. The operation is repeated, with the result that the fibers produced are finer, being called *linioan*. These two classes are separated and afterwards cleaned in running river water, and beaten with a piece of cane until thoroughly white. They are then dried and are ready for market.

To extract the fibers of the silhigon, labog-labog, dalupang, togabang, and bunang-bunang the shoots are buried in mud for a week, and then are separated and cleaned.

Those of the bago, lapnis, anilao, siapo, bagocon, tan-ág, banilad, balitnong, paat-haló, tipoló, and hanagdong are obtained by removing the bark and then the outer covering of the bark itself. The fibers that remain are called *banhot*, which is dried and is then ready for making twine.

J. ARANETA.

LAUSIANA PLANTATION, BAGO, NEGROS OCCIDENTAL.

October 22, 1902.

BUREAU OF CUSTOMS AND IMMIGRATION.

W. MORGAN SHUSTER, *Chief of Bureau.*

Commerce of the Philippine Islands.

[From the Second Report of the Collector of Customs. See also Vol. I No. 69, p. 956.]

CRITICISMS OF THE CUSTOMS SERVICE.

In complying with instructions to render a report fully covering the organization and operation of the Philippine Customs Service during the past year it is perhaps not improper to conclude by a reference to the somewhat numerous criticisms which, with more

or less authority, have been voiced in the press of this city respecting the present customs administration, especially that at the port of Manila.

The general tone of those criticisms has been against the alleged strictness with which the revenue and collateral laws have been enforced, coupled with complaints against the regulations ostensibly prescribed for the orderly conduct of customs business.

To these complaints this office has heretofore made no reply, but the matter is deemed to be of sufficient importance to warrant a statement here of the principles which it has been sought to follow in the administration of all customs laws in these Islands.

After a continuous experience of over five years with customs work in countries which were formerly under Spanish rule the undersigned could not fail to note that one of the most frequent arguments against a strict and impartial enforcement of revenue laws in such countries is that it hampers and prejudices trade and causes loss to the business community. In the opinion of the undersigned no doctrine could be more false and short-sighted; none more disastrous to those very ones who urge its policy. It is plain that customs laws, like most others, are made for all alike—to govern and protect both the rich and the poor, the wholesaler and the retailer, the shrewd and the dull. With specialized leniency, which has been so strenuously counseled, favoritism, so-called liberal constructions, in reality amounting to violations of the spirit of the statutes, and in general with a policy where personal-ities or affiliations of any kind hold sway, but one result can follow both for the authorities and for the public.

It is true that for a time, under certain conditions, the immediate results of such a policy often appear to support the opposite view; that is to say, the manifestation of such a disposition on the part of an administration may give an unnatural stimulus to importations and for a time show greatly increased revenues as a result; but to reach such a conclusion is to be deceived, since such a state must of necessity be temporary, for the obvious reason that no amount of importations, however great, can create a demand for the commodities imported, which would not otherwise exist. Hence even this abnormal inducement to import only reacts in the same degree as it arose. Commercial prosperity rests upon more solid grounds than a loose interpretation of the laws, and such an interpretation is objectionable on the grounds of its necessary partiality, ambiguity, and inequality of application, if for no other reasons.

It is not meant by this that revenue laws should be harshly administered or that unnecessary restrictions should be thrown around legitimate trade, but it is meant that the ordinary canons of statutory interpretation should be applied by a revenue officer, just as they would be if the questions were the subject of judicial decision. The personal opinions or inclinations of executive officers and their belief or convictions as to the propriety or justice of the statutes involved can properly have no part in the enforcement of those laws. All such influences go beyond the scope of a reasonable discretion.

It is true that where discretion is given an executive officer he may be guided in his exercise of it by his personal opinions as to that particular law, or by the spirit of the particular community in which he may be enforcing the law, but even under those circumstances the spirit of the legislators and the object of the law must be kept ever in mind.

To adopt any other principle of executive procedure is to invite chaos, injustice, and fraud. The ordinary canons of statutory interpretations are comparatively few, exact, and known. Any appreciable divergence from them is easily detected and subject to remedy, hence the administration of laws under such a procedure is simple, uniform, and necessarily fair. Permit, however, the personal opinions or desires of the numerous officials charged with

enforcing a set of laws to have weight in the manner of their enforcement, or the apparent sentiment of a particular community to influence the method of their administration, and the law becomes more or less the expression of the naturally diverse opinions of those charged with its execution, influenced by their immediate surroundings, instead of being subject to one uniform rule. The results of such a policy are too obvious to require comment.

A republican form of government is based upon the will of the people. This ruling factor must make its wishes known in some tangible and definite way. Thus a legislature is created. With such a body the people deposit their instructions, confidence, and discretion, and it is for the legislature to proclaim the will of the people in clear and unmistakable terms. This being done there arises the necessity for machinery to enforce the will of the people, but always along the lines shown by the people's mouthpiece and interpreter—the legislature. Any information as to the policy with which to execute a general law must be gained from its purpose and spirit as discussed and considered by the legislature and not from the sentiment of any particular local community in which the law may happen to be enforced. The executive is but the machinery of the legislative, and its functions are limited to a reasonable interpretation and absolutely impartial enforcement of the legislative will.

Even within these bounds, however, questions of interpretation will necessarily arise and disputes occur as to the scope and intent of every law. To settle such questions and to declare the legislative will in all doubtful cases the judiciary is created and vested with absolute and unrestrained interpretative power, and in all cases with an ample and freely exercised discretion.

Through these three branches the functions of government are carried on, and any encroachment, however small and apparently unimportant, by one branch on the rights and duties of the other can not fail to produce disorder and derangement of the governmental system.

The executive officer who departs from the plain legislative intent is usurping the powers conferred by the people on the legislature, and whether his departure be in the direction of oppressive use of the powers conferred upon him or a so-called lax administration the results to the community are equally bad. It is possible to "read the reason out of" any statute, but such is not the proper function of an executive officer.

The powers and jurisdiction of executive and judicial officers often overlap, and at all times are so closely interwoven that in many cases the difference in their jurisdictions lies more in the method or procedure in interpreting and declaring the meaning of the laws than in any fundamental distinction. In such cases there is usually an appeal to the judiciary where a deprivation of life, liberty, or property by reason of executive decision is alleged. In other and fewer instances, however, the legislative branch has specifically conferred upon the executive what are plainly judicial or quasi-judicial powers, making the decisions of the executive final and beyond judicial appeal. In such cases the highest judicial tribunal of the United States has usually upheld this action and refused to interfere, especially where the statute is clear and explicit on the point of pure executive jurisdiction.

It has been the purpose of this office, in the discharge of its somewhat unpopular duties, to follow the foregoing principles of administration, and though the necessary enforcement of many laws which are more or less generally condemned as unsuitable in certain quarters has produced a full share of criticism and complaint, it is trusted that the permanent organization of the Government of the Islands may benefit by the course pursued.

Respectfully submitted.

W. MORGAN SHUSTER,
Collector of Customs for the Philippine Islands.

EXPORTS FROM THE PHILIPPINE ISLANDS.

[For tables on imports, see Vol. I, No. 6^a, p. 957.]Comparative summary of exports from the *Philippine Islands*, by countries, during the two fiscal years ending June 30, 1903.

[Duties and values represented in United States currency.]

Countries.	1902.		1903.	
	Values.	Duties.	Values.	Duties.
United States.....	\$7,871,743	\$286,916	\$13,863,059	\$619,418
England.....	8,280,478	339,053	8,799,329	449,273
Spain.....	869,875	97,212	7,757,500	89,807
Hongkong.....	5,799,123	83,442	7,303,234	76,688
Japan.....	1,346,517	27,032	1,759,366	55,597
France.....	955,828	23,788	3,684,116	120,690
British East Indies.....	672,614	13,169	994,400	16,867
British Australasia.....	436,530	12,953	336,251	15,133
Chinese Empire.....	295,322	6,965	649,502	10,344
British Africa.....	122,073	4,410	12,092	297
French China.....	120,180	3,372	93,353	2,797
Austria-Hungary.....	88,787	20,587	162,197	21,233
Germany.....	75,626	1,881	306,664	8,676
British China.....	55,191	894	394,258	294
Belgium.....	46,829	2,565	137,103	8,373
East Indies, Dutch.....	27,442	807	25,198	1,029
Netherlands.....	20,212	1,203	44,061	4,199
Italy.....	17,830	324	13,177	196
Quebec, Ontario, etc.....	7,679	108	6,157	118
Gibraltar.....	6,812	224	9,499	284
Russia.....	12,128	319	28,417	811
Scotland.....	3,721	59	2,787	40
Hawaiian Islands.....	3,687	63	5,910	135
British Columbia.....	3,648	66	2,030	41
All other Asia—Siam.....	3,003	42	128,332	109
Guam.....	2,481	14	-----	-----
German Oceania.....	1,934	1	-----	-----
East Indies, French.....	1,578	29	109,317	172
Korea.....	1,400	22	710	12
Aukland Islands.....	1,310	24	130	2
Uruguay.....	1,246	234	2,700	570
Switzerland.....	1,008	17	457	10
Russian China.....	905	12	678	9
Turkey in Africa—Egypt.....	889	16	1,952	68
Guatemala.....	411	8	-----	-----
Canary Islands.....	321	18	4,128	356
All other Asia—Arabia.....	167	2	-----	-----
Argentine Republic.....	150	20	599	79
Aden.....	140	1	718	10
Bermuda.....	119	4	-----	-----
All other Asia—Persia.....	95	1	-----	-----
Malta, Gozo, Cypress.....	48	1	2,970	93
Greece.....	7	-----	-----	-----
Nova Scotia, New Brunswick.....	-----	-----	4,684	275
Paraguay.....	-----	-----	480	115
East Indies, Portuguese.....	-----	-----	163	1
Spanish Africa.....	-----	-----	900	49
Spanish Oceania.....	-----	-----	30	-----
Portugal.....	-----	-----	24,775	1,597
French Africa.....	-----	-----	1,035	24
Total.....	27,157,087	927,978	39,674,328	1,505,891

NOTE.—The foregoing is a summary of monthly reports on Form 4, Exports by Articles and Countries, in which forms fractions of dollars are omitted. In this report wharfage and harbor dues are included as export duties. On Form No. 1 these items are given separately, and export duty proper, only, given under that head.

EXPORTS BY COUNTRIES.

The foregoing figures representing a comparative statement of exports, by countries, for the two fiscal years 1902 and 1903, are not without interest and significance.

The United States rises from second to first place, leading England to the extent of \$5,063,730, whereas for the previous year England led the United States to the extent of \$408,733.

Those two countries out of a list of fifty-one countries to which products of the Islands have been exported receive more than one-half of all the exports from the Philippine Islands.

The increase of exports for the year 1903 over the year 1902 is \$12,517,241, a most gratifying showing, all circumstances considered.

The abnormal exports of Mexican silver coin to Hongkong gives Hongkong a prominence in the list which it would not otherwise occupy.

Excluding gold and silver coin, France stands third in the list of export countries, Japan fourth, and Hongkong fifth.

None of the other forty-six countries reaches the million-dollar mark.

Summary of exports, by countries, from the port of Manila, P. I., during the two fiscal years ending June 30, 1903.

[Values and duties represented in United States currency.]

Countries.	1902.		1903.	
	Value.	Duty.	Value.	Duty.
United States.....	\$5,089,326	\$199,406	\$9,503,475	\$447,170
England.....	7,385,170	308,422	7,400,100	384,689
Spain.....	869,875	97,212	757,500	89,807
Hongkong.....	4,329,178	30,941	5,822,857	39,141
France.....	816,246	20,765	3,004,006	102,122
Japan.....	636,247	6,615	493,447	10,639
British Australasia.....	436,530	12,953	336,251	15,133
East Indies, British.....	421,515	10,665	642,640	12,445
Austria-Hungary.....	88,787	20,587	162,197	21,233
Germany.....	75,626	1,881	127,684	4,423
Chinese Empire.....	65,077	1,186	430,716	2,227
British China.....	55,191	894	394,258	294
Belgium.....	46,829	2,565	137,103	8,373
East Indies, Dutch.....	38,863	1,140	12,092	297
Netherlands.....	27,224	771	24,721	1,008
Italy.....	20,212	1,203	44,061	4,199
Quebec, Ontario, etc.....	17,830	324	13,177	196
Gibraltar.....	7,679	108	6,157	118
Scotland.....	6,812	224	9,499	284
Hawaiian Islands.....	3,721	59	2,787	40
British Columbia.....	3,687	63	5,910	135
French China.....	3,648	66	2,030	41
All other Asia—Siam.....	3,003	42	81,273	107
Guam.....	2,481	14	-----	-----
German Oceania.....	1,934	1	-----	-----
East Indies, French.....	1,578	29	109,317	172
Korea.....	1,400	22	710	12
Aukland Islands.....	1,310	24	130	2
Uruguay.....	1,246	234	2,700	570
Switzerland.....	1,008	17	457	10
Russian China.....	905	12	578	9
Turkey in Africa—Egypt.....	889	16	1,952	68
Guatemala.....	411	8	-----	-----
Canary Islands.....	321	18	4,128	356
All other Asia—Arabia.....	167	2	-----	-----
Argentine Republic.....	150	20	599	79
Aden.....	140	1	718	10
Bermuda.....	119	4	-----	-----
All other Asia—Persia.....	95	1	-----	-----
Malta, Gozo, Cypress.....	48	1	2,970	93
Greece.....	7	-----	-----	-----
Portugal.....	-----	-----	24,775	1,597
Nova Scotia, New Brunswick.....	-----	-----	4,694	275
French China.....	-----	-----	98	6
Paraguay.....	-----	-----	480	115
East Indies, Portuguese.....	-----	-----	163	1
French Africa.....	-----	-----	1,035	24
Spanish Africa.....	-----	-----	900	49
Spanish Oceania.....	-----	-----	30	-----
Total.....	20,462,688	718,516	29,570,375	1,147,569

NOTE.—The foregoing is a summary of monthly reports on Form 4, Exports by Articles and Countries, in which forms fractions of dollars are omitted. In this report wharfage and harbor dues are included as export duties. On Form No. 1 these items are given separately, and export duty proper only, given under that head.

Chief articles of export from the Philippine Islands during the fiscal year ending June 30, 1903, showing quantity, value, and duty.

[Value and duty represented in United States currency.]

Port.	Cacao.			Hemp.		
	Pounds.	Value.	Duty.	Tons.	Value.	Duty.
Manila.....	35	\$9	-----	107,671	\$17,505,440	\$880,273
Jolo.....	22	2	-----	64	9,616	529
Cebu.....	-----	-----	-----	22,323	4,186,519	184,260
Total.....	57	11	-----	130,058	21,701,575	1,065,062
Port.	Cordage.			Cocoanuts.		
	Pounds.	Value.	Duty.	Pounds.	Value.	Duty.
Manila.....	51,975	\$7,307	\$168	1,465	\$63	\$1
Jolo.....	6,820	464	25	-----	-----	-----
Total.....	58,795	7,771	193	1,465	63	1
Port.	Copra.			Cocoanut oil.		
	Pounds.	Value.	Duty.	Gallons.	Value.	Duty.
Manila.....	150,987,811	3,313,151	\$119,915	428	\$183	\$1
Zamboanga.....	3,128,331	80,342	2,489	400	172	2
Jolo.....	2,102,676	53,922	1,658	-----	-----	-----
Cebu.....	59,074,273	1,025,264	27,328	-----	-----	-----
Total.....	215,293,091	4,472,679	151,390	828	355	3

Chief articles of export from the Philippine Islands, etc.—Continued.

Port.	Ilang-ilang oil.			Sugar, raw.		
	Gallons.	Value.	Duty.	Pounds.	Value.	Duty.
Manila	5,066	\$103,668	\$14	2,550,052	\$36,646	\$1,480
Cebu	27	471		17,548,240	268,646	9,971
Iloilo				226,056,790	3,650,536	129,476
Total	5,093	104,139	14	246,155,082	3,955,828	140,927

Port.	Candy and confectionery.			Tobacco, unmanufactured.		
	Pounds.	Value.	Duty.	Pounds.	Value.	Duty.
Manila	26,362	\$1,001	\$9	20,626,441	\$902,606	\$120,205
Zamboanga				172	4	1
Jolo	9	2				
Cebu	5,383	125	2			
Total	31,754	1,128	11	20,626,613	902,610	120,206

Port.	Cigars.			Cigarettes.		
	Thousands.	Value.	Duty.	Thousands.	Value.	Duty.
Manila	119,698	\$946,889	\$19,510	20,502	\$20,697	\$520
Zamboanga		6				
Jolo	18	176	6	1	2	
Cebu	1	25				
Iloilo	4	48	1			
Total	119,721	947,144	19,517	20,503	20,699	520

NOTE.—Total export value for fiscal year 1903, \$39,674,328; of this total value of exports, the twelve items above given represent an aggregate value of \$32,114,002, leaving for all other articles a value of \$7,560,326, and of this \$5,977,741 represents the gold value of Mexican money exported, leaving \$1,582,585 for all other articles.

LEADING ARTICLES OF EXPORTS.

Hemp may well be ranked as king of exports from the Philippine Islands, it amounting in value to about two-thirds of the entire exports.

It is gratifying to note that notwithstanding "ladronism" hemp exports have shown steady increase during the past four years, reaching the handsome figure of \$21,471,575 in the fiscal year 1903, an increase of \$5,860,259 over the year 1902.

The copra industry, too, has shown a most remarkable increase of more than 300 per cent over the previous year.

Sugar and tobacco have shown substantial increases. The exportation of cigars and cigarettes has shown a considerable decline.

Ilang-ilang exports have shown marked increase and give promise of substantial growth in the future as one of the rising products of the Islands. It is reported to be an almost certain crop and to yield a profit as high as \$5 per tree per month.

Exportation of hemp from Manila for the fiscal year ending June 30, 1903, showing names of exporters.

Date.	W. F. Steven-son.	Warner Barnes.	Smith Bell.	Mac-leod.	Com-pania Tabac-alera.	Kerr & Co.	All other.	Total.
1902.								
July	Bales. 19,551	Bales. 18,252	Bales. 845	Bales. 3,610	Bal s. 8,880	Bales. 3,255	Bales. 1,082	Bales. 55,425
August	8,624	5,950	9,649	4,578	2,401	6,335	582	38,039
September	26,140	15,400	19,953	3,838	13,740	4,217	25	83,313
October	30,249	13,800	19,299	8,351	7,175	6,314	550	85,738
November	13,500	21,050	23,304	1,276	3,906	1,000	814	64,850
December	18,720	4,000	18,733	5,240	9,874	325	2,009	58,901
1903.								
January	4,310	15,350	28,586	9,631	3,295	10,817	2,409	74,398
February	14,092	14,750	6,802	9,552	6,834	4,029	2,131	57,690
March	16,578	7,979	6,557	1,219	1,150	3,700	3,765	40,948
April	21,750	37,750	24,786	18,278	5,450	8,774	5,687	122,475
May	27,288	25,550	15,023	7,448	6,650	2,322	2,768	87,034
June	21,722	21,166	14,147	3,948	6,459	2,880	2,412	72,734
Total	222,519	200,997	187,184	76,969	75,814	53,988	24,074	841,545

HEMP REFUNDS—EXPORTS TO THE UNITED STATES.

Since the act of Congress of March 8, 1902, there has been a great increase in the amount of hemp shipped from these Islands

to the mainland territory direct, in order to obtain the refund on the duties paid on transportation here. * * *

The following table of hemp exports from the Philippine Islands to the United States since American occupation, by quarters, will show the increased trade with the mainland territory since March 8, 1902:

	1898.		1899.		1900.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
First quarter			5,797	\$449,300	4,109	\$491,750
Second quarter			5,132	581,250	6,465	969,215
Third quarter			6,886	905,815	3,409	501,185
Fourth quarter	7,965	\$827,804	7,898	1,079,353	6,321	834,518
Total	7,965	827,804	25,713	3,015,718	20,304	2,796,668

	1901.		1902.		1903.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
First quarter	3,937	\$544,526	10,990	\$1,801,029	9,719	\$1,448,545
Second quarter	4,205	522,638	11,626	2,370,283	23,039	3,947,697
Third quarter	10,325	1,328,290	17,090	2,949,680	13,398	2,248,991
Fourth quarter	11,869	1,761,859	17,986	3,375,109		
Total	30,336	4,157,313	57,692	10,496,101		

Statement of Chinese arrived at and departed from the port of Manila during the calendar years 1899, 1900, 1901, 1902, and first six months of 1903.

Year.	Arrived.	Departed.
1899	13,308	9,458
1900	9,768	10,568
1901	10,309	7,294
1902	9,789	6,550
January 1 to June 30, 1903	3,990	3,759
Total	47,164	37,629

Statement of Chinese arriving at and departing from ports in the Philippine Islands during the period of American occupation to June 30, 1903.

Ports.	Arrived.	Departed.
Manila	47,164	37,629
Cebu	451	814
Iloilo	790	980
Jolo	746	539
Siassi	27	
Zamboanga	168	372
Total	49,346	40,134

Total number of immigrants of all nationalities arrived during the fiscal year 1902, 30,094.

Total number of immigrants of all nationalities arrived during the fiscal year 1903, 24,096.

No record for period previous to January 1, 1899. Departures do not include Chinese rejected and refused landing, but only such as received certificates of residence through the Immigration Division.

Contents.

Public laws:

Act No. 1038, amending Act No. 932, as amended, changing the seat of municipal government.

Act No. 1039, dedicating portions of the public lands and buildings in Cavite for use as a naval station, and making other grants.

Executive orders:

No. 4, extending the time for the completion of the revision of the real-estate tax-assessment list for the Province of La Union.

Decisions of the Supreme Court:

In the matter of the suspension of R. S. MacDougall.

Statistics from Bureaus of the Government:

Board of Health for the Philippine Islands—

Vital statistics for the month of November, 1903.

Weather Bureau—

Meteorological data for the month of November, 1903.

Bureau of Education—

The aims of primary education in the Philippines.

Excerpts from reports of division superintendents—

Private schools.

Normal institutes.

Provincial schools.

Teachers, American and native.

The cholera epidemic.

General progress and school conditions.

Statistics.

Bureau of Agriculture—

Fibers of the Philippines—

Cultivation of maguay.

Fiber plants and fibers, Negros Occidental.

Statistics from Bureaus of the Government—Co.
Bureau of Customs and Immigration—
Commerce of the Philippine Islands
Criticism of the Customs Ser-
Statistics, exportations—
By countries.
From port of Manila.
Chief articles of export.
Exportations of hemp.
Chinese arrived and depar

Announcement

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The Government of the Philippine Islands.

Legislative.

THE PHILIPPINE COMMISSION.

(Ayuntamiento—The Palace.)

Commissioners.—William H. Taft, President (on leave in United States); Dean C. Worcester, Luke E. Wright, Henry C. Ide, James F. Smith, Trinidad H. Pardo de Tavera, Jose R. Luzuriaga, Benito Legarda.

Executive.

Civil Governor.—William H. Taft (in United States); private secretary, Fred W. Carpenter (on leave); Captain Robert H. Noble, Third United States Infantry, Aid-de-Camp to the Civil Governor.

Vice-Governor and Acting Civil Governor.—Luke E. Wright.
Secretary of the Interior.—Dean C. Worcester; private secretary, E. O. Johnson.

Secretary of Commerce and Police.—Luke E. Wright; acting private secretary, L. W. Manning.

Secretary of Finance and Justice.—Henry C. Ide; private secretary, Jackson A. Due.

Secretary of Public Instruction.—James F. Smith; private secretary, W. H. Donovan.

EXECUTIVE DEPARTMENT.

Executive Bureau.—A. W. Fergusson, Executive Secretary; Frank W. Carpenter, Assistant Executive Secretary; R. D. Fergusson, in charge, Translating Division; Claude W. Calvin, Recorder of the Commission, Chief of Legislative Division; G. M. Swindell, Acting Chief of Administration and Finance Division; Sidney Thomas, Chief of Records Division; H. A. Lammman, Disbursing Officer.

Bureau of Insular Purchasing Agent.—Major E. G. Shields, Insular Purchasing Agent; A. L. B. Davies, Local Purchasing Agent; M. L. Stewart, Assistant Insular Purchasing Agent.

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Philippine Civil Service Board (Intendencia Building).—Dr. W. S. Washburn, Chairman; Dr. B. L. Falconer, Dr. Jose Alemany.

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Quarantine Service (United States Public Health and Marine-Hospital Service; 78 Madrid).—Dr. Victor G. Heiser, Chief Quarantine Officer; Drs. John D. Long and George W. McCoy, Assistants.

Maritime Detention and Disinfection Station.—Dr. H. A. Stansfield, in command.

Iloilo Quarantine Station.—Dr. M. K. Gwyn, in command.

Cebu Quarantine Station.—Dr. Carroll Fox, in command.

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Mining Bureau (358 Cabildo).—H. D. McCaskey, Chief.

Philippine Weather Bureau (Calle Observatorio, Ermita).—Rev. José Algué, S. J., Director.

Bureau of Public Lands (Intendencia Building).—Will M. Tipton, Chief.

Bureau of Agriculture (155 Nozalea).—Prof. F. Lamson-Scribner, Chief (on leave); W. E. Welborn, Acting Chief.

Ethnological Survey for the Philippine Islands (228 Nueva, Ermita).—Professor A. E. Jenks, Chief.

Bureau of Government Laboratories (719 Iris).—Dr. P. C. Freer, Superintendent Government Laboratories; Dr. R. P. Strong, Director Biological Laboratories; Dr. James W. Jobling, director of Serum Laboratory.

Philippine Civil Hospital (791 Iris).—Dr. H. Eugene Stafford, Attending Physician and Surgeon.

Civil Sanitarium (Baguio, Benguet).—Dr. J. B. Thomas, Attending Physician and Surgeon.

DEPARTMENT OF COMMERCE AND POLICE.

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Bureau of Philippines Constabulary (228, Anda, Intramuros).—Brig. Gen. Henry T. Allen, U. S. A., Chief of Constabulary; Col. William S. Scott, U. S. A., Assistant Chief, Commanding First District; Col. Harry H. Bandholtz, U. S. A., Assistant Chief, Commanding Second District; Lieut.-Col. Wallace C. Taylor, Assistant Chief, Commanding Third District; Maj. Jesse S. Garwood, Assistant Chief, Commanding Fourth District; Col. James G. Harbord, U. S. A., Assistant Chief, Commanding Fifth District; Maj. Samuel D. Crawford, Assistant Chief, on temporary duty at Constabulary headquarters, Manila; Col. D. J. Baker, Jr., U. S. A., Assistant Chief, Chief Supply Officer.

Bureau of Prisons (Headquarters, Bilibid Prison, Calle Iris).—George N. Wolfe, Warden; M. L. Stewart, Deputy Warden; W. N. Chandler, Assistant Deputy Warden; William R. Moulden, Resident Physician; Egbert Adams, Cashier, Property and Disbursing Officer.

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Bureau of Coast and Geodetic Survey (Intendencia Building).—George R. Putnam, Assistant in charge of United States Suboffice.

Bureau of Engineering (Santa Potenciana Building).—James W. Beardsley, Consulting Engineer to the Commission; Joseph G. Holcombe, Principal Assistant Engineer; James D. Fauntleroy, Chief of Supervisors; Charles H. Kendall, Assistant Engineer.

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Bureau of the Insular Auditor (Intendencia Building).—Abraham L. Lawshe, Auditor of the Philippine Archipelago; W. W. Barre, Deputy Auditor.

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Bureau of Internal Revenue (147 Anloague).—Albert W. Hastings, Acting Collector.

Insular Cold Storage and Ice Plant.—Charles G. Smith, Superintendent.

Bureau of Justice.—Lebbeus R. Wilfley, Attorney-General (on leave); Washington L. Goldsborough, Assistant Attorney-General; Gregorio Araneta, Solicitor-General; James Ross, Supervisor of Provincial Fiscals; Geo. R. Harvey, Assistant Attorney-General for the Constabulary.

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Bureau of Public Printing.—John S. Leech, Public Printer.

Bureau of Architecture and Construction of Public Buildings (Calle Anloague).—Edgar K. Bourne, Chief.

Bureau of Archives (Palace).—Manuel de Iriarte, Chief.

Bureau of Patents, Copyrights and Trade-Marks (Palace).—Manuel de Iriarte, in charge.

American Circulating Library (70 Rosario).—Mrs. Egbert, Librarian.

Official Gazette (Santa Potenciana Building).—Max L. McCollough, Editor.

Census Bureau.—Brig. Gen. J. P. Sanger, United States Army, Director of the Census.

Judiciary.

SUPREME COURT.

(Audiencia, 47 Palacio.)

Chief Justice.—Don Cayetano Arellano.

Associate Justices.—Florentino Torres, J. F. Cooper, Victorino Mapa, Chas. A. Willard, E. Finley Johnson, and John T. McDonough.

Clerk.—J. E. Blanco.

Reporter.—Fred C. Fisher.

COURT OF LAND REGISTRATION.

(138 Calle Real, Walled City.)

Judge.—S. del Rosario.

Associate Judge.—D. R. Williams.

Clerk.—J. R. Wilson.

COURTS OF FIRST INSTANCE.

Manila, Part 1.—John C. Sweeney, judge.

Manila, Part 2.—W. J. Rohde, judge.

Manila, Part 3.—Byron S. Ambler, judge.

Manila, Part 4.—Manuel Araullo, judge.

Clerk.—J. McMicking.

First District.—Albert E. McCabe.

Second District.—Dionicio Chango.

Mountain District.—Charles H. Burritt.

Third District.—Arthur F. Odlin.

Fourth District.—Julio Llorente.

Fifth District.—Estanislao Yusay.

Sixth District.—Ignacio Villamor.

Seventh District.—Paul W. Linebarger.

Eighth District.—Grant T. Trent.

Ninth District.—Henry C. Bates.

Tenth District.—

Eleventh District.—Adam C. Carson.

Twelfth District.—James H. Blount.

Thirteenth District.—Warren H. Ickis.

Fourteenth District.—John S. Powell.

Fifteenth District.—Wm. F. Norris.

Additional judges.—Adolph Wislezenus, Capiz; Beekman Winthrop; Miguel Logarta.



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